

# INSIDE DOPE

by GEORGE F. TAUBENECK

Brooklyn Again  
Second Sight  
Foggy Sight  
Meal Ticket  
Is a Hammock  
Unbelievable Sight  
Foresight

## Brooklyn Again

In the old days before it underwent a face-lifting, Ebbets Field had a low retaining wall enclosing its outfield "gardens." This rickety wall sorta leaned backward. One day a second baseman for the Dodgers chanced to hit a line drive which struck the base of that fence. The ball rolled upward and plopped over into the street.

At that time sportswriters were independent correspondents, and were paid so much per inch for their stories.

"The gol-darndest thing happened today," reported the correspondent who covered this Dodge game. "George Cutshaw hit a liner which struck the bottom of the right field fence. The ball rolled up the fence and dropped into the street. I know you won't believe it, but 10,000 fans will back me up. How much space do I get for this story?"

"Hold it to three hundred words," granted the editor.

"But, Al," protested Harry, "you don't understand. The ball climbed the right field wall..."

"I don't give a darn if it climbed the flag pole in the center field. Three hundred words is all you get!"

Ed and Steve McKeever, who built Ebbets Field, picked up the Brooklyn Dodgers franchise on the strength of a defaulted note. Two weeks later Ed passed away and brother Steve, a "character," assumed full control.

Steve greeted anyone and everyone with a standard query: "How's your big heart?" This gag was his trade-mark. Invariably he appended it to all the letters he scrawlingly scribbled.

At that moment in Brooklyn's turbulent history, the boss of the Democratic Party thereabouts was a stuffed shirt—who was long on dignity and short on temper. Steve wrote him a letter asking for a favor, and added his "trade-mark" tagline.

The political boss' secretary translated the letter and typed it for Mr. Stueffert's perusal. This is what the letter read:

"How's your big heart?"

And the McKeever clan nearly went broke in consequence.

At Vero Beach, Fla., an assertive woman tourist grabbed Burt Shotton and demanded that he pose for a snapshot.

She was at least six feet tall, as the former Brooklyn manager recalls the incident, and must have weighed 240 without her girdles. Rickey's jockey paused abashedly while the Amazon adjusted the focus on her camera.

His toothpaste grin was wearing thin when she begged him to "hold still" a moment longer—whereupon she waddled over to a parked car, jerked open the rear door, jerked out a five-foot-five wisp of a Casper Milquetoast, and jerked Mr. Jerque alongside the Dodge manager. Then she snapped the picture.

To the astonished Shotton she explained: "People back home are allus sayin' I married Casper for his money. I wanna show 'em that he's an athlete."

Beauteous Laraine Day of the movies divorced her rich-and-hand-some husband to marry a homely, irritable, unpredictable, controversial, insecure baseball manager: Leo Durocher. (He was the Dodge "holler guy" at the time).

Let Laraine explain why in her own words:

"To me, Leo is exciting. We hadn't been married long enough to get acquainted, really, when he came home in a high dudgeon. His team had stranded more base-runners than seemed reasonable (or possible) to Leo. I tried to soothe him. I sat on the arm of his chair, ran my fingers

(Concluded on Page 8, Column 1)

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# AIR CONDITIONING & REFRIGERATION News

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## Carrier Opens 1st In 500-Unit Home Project In South

NEW ORLEANS — The "pilot" home of a projected 500 Carrier "Weathermaker Homes" designed and built around complete air conditioning was thrown open for a 30-day public inspection Sunday, Aug. 10, in the Green Acres subdivision here.

A similar project was previewed by the press in Kansas City only last Saturday, Aug. 16, while other "Weathermaker Home" projects are under construction or being planned in northern New Jersey and two locations in Texas.

Some five different exteriors ranging from modern to traditional and many different interior arrangements, all of them designed in terms of this concept, are being offered by London Homes, Inc., which was

(Concluded on Back Page, Column 1)

## 'Install It Yourself' Room Cooler Introduced

NEWARK, N. J.—A new ½-hp. "install it yourself" room air conditioner that sells for \$199.75, complete with accessory installation kit, has been introduced by Quiet Kool room air conditioner division of Quiet Heat Mfg. Co. here. It was announced by Eugene M. Peters, vice president of Quiet Heat.

"A new design in the manufacture of the air conditioner resulted in the balancing of the main weight of the air conditioner on the window sill proper," the company said. "This compact and streamlined air conditioner projects only nine inches into the room, and does not extend outside the normal building line."

"The Quiet Kool room air conditioner can be installed by practically

(Concluded on Page 25, Column 1)

## 'Time' Reports Wampler's Prediction on Future Of Air Conditioning

NEW YORK CITY — Time, the weekly news magazine, hailed the 50th anniversary of air conditioning in its Aug. 11 issue with an article on Carrier Corp. and its president Cloud Wampler.

In the article, Time quotes Wampler as predicting that air conditioning sales should more than double in the next 10 years. He also said that in that time there will be 5,000,000 houses with single room coolers.

Man will forget, said Wampler, "the day when he used to wrestle

(Concluded on Page 25, Column 3)

## Chemical Firm Will Market 2 Refrigerants

NEW YORK CITY—General Chemical Div. of Allied Chemical & Dye Corp. here has announced its entry into the refrigerant field.

Initial production of trichloromono-fluoromethane and dichlorodifluoromethane has started at its Baton Rouge, La. works, the company said.

These two additions to its line of organic fluorine compounds will be actively marketed as refrigerants under the trade names of "Genetron 11" and "Genetron 12," "quality specifications having been especially established to meet refrigeration use requirements," a company spokesman declared.

[It will be noted from the chemical names that these refrigerants have the same formulas as two of those which have been produced and marketed by another manufacturer for several years under similar trade names which incorporate identical numbers.]

Full details of its marketing program were not revealed, but a General Chemical official commented, "Sales to manufacturers of refrigera-

(Concluded on Page 25, Column 2)

## Whitmore, Hornaday Head Deepfreeze Engineering



H. W. Whitmore J. R. Hornaday

NORTH CHICAGO, Ill.—Harley W. Whitmore has been advanced to the newly created post of director of engineering and J. R. Hornaday will succeed him as chief engineer, L. J. Sorensen, vice president of Motor Products Corp. and general manager of its Deepfreeze Appliance Div., has announced.

A veteran of seven years with Deepfreeze, Whitmore will now assume charge of the company's engineering and design staffs and will supervise all research and development activities on its home freezers, refrigerators, electric ranges, and water heaters, Sorensen said.

Hornaday, currently a director of the American Society of Refrigerat-

(Concluded on Page 4, Column 5)

## Westinghouse Adds New Refrigerator, Dryer, Washer

MANSFIELD, Ohio—A new electric clothes dryer that plays "How Dry I Am" when the drying cycle is completed and a redesigned automatic washer have been introduced by the Westinghouse Electric Appliance Div. here.

Westinghouse has also launched its refrigerator fall selling campaign with the introduction of a new 9-cu. ft. deluxe refrigerator.

Called the model DD-9, the refrigerator carries a suggested retail price of \$299.95, reports G. H. Meilinger, manager of household refrigeration. It will be available soon for national distribution.

Both laundry appliances have been restyled although retaining their slanting front designs. On both a keystone type escutcheon ring surrounds the glass door. The chromium

(Concluded on Page 4, Column 1)

## Baker, Airtemp V.P., Dies of Heart Attack

DAYTON—Irving C. Baker, 58, an executive of Dayton's Chrysler Airtemp Div., died Sunday, Aug. 10, following a heart attack, suffered at his home.

Baker was vice president of the Airtemp Div. of the Chrysler Corp., vice president of the Chrysler Construction Corp., and vice president of the Airtemp Sales Corp.

Baker joined the division when it was organized in Detroit in August, 1935. He directed the Chrysler Corp.'s conversion of the old Maxwell plant in Dayton to the production of Airtemp air conditioning, refrigeration, and heating equipment.

Before coming with Airtemp, he was associated with the York Ice Machinery Corp. of York, Pa., as general sales manager.

## Buffalo Rules Custards Be Cooled Year-Round

BUFFALO — Custard-filled baked goods and other related items now must be kept in refrigerated display cases the year-round, under a new ruling by the Health Department of Erie county.

Formerly, perishable pastries and baked goods had to be kept under refrigeration in stores only during hot summer months.

The ruling also requires bakeries which sell their products to retail outlets or to the consumer from vehicles must provide refrigeration in

(Concluded on Page 25, Column 3)

## Higher Prices Seen as Steel Gets Increase

## Retailers Think Public Won't Pay More for Appliances Than Now

DETROIT—Nobody seems to want prices of appliances and other goods to go up this fall, but almost everybody seems to be afraid that they will.

The fear is based on the \$5.20 per ton increase that the steel companies have been authorized by the Office of Price Stabilization. OPS officials gave the increase under protest and now feel that they must permit other manufacturers to pass on most of any resulting increase in their materials costs to their customers too.

Manufacturers will have to apply for the increased ceilings, but they will be there when they come to get them, reports indicate. They will have to absorb part of any increased cost but they will be able to pass on most of it.

On the other hand, businessmen, particularly retailers and distributors, believe that the public is now paying all it intends to for appliances particularly. The feeling is that even though ceilings may go up, actual prices will not.

One appliance retailer, Nick Delgado of Buffalo, recently offered to let the customer set the price of his goods. He quadrupled his business during the 10-day sale, but at prices 15 to 40% lower than list. But, he indicated, total profits were up despite the cuts.

Irwin D. Wolf, chairman of the vendor relations committee of the National Retail Dry Goods Association, advised manufacturers who intend to fair trade their goods to set realistic minimum prices with an adequate dealer margin.

"Unless producers of 'fair trade' merchandise realize that the spread between the cost and the selling price of an item must be sufficient to cover increasing operating expenses and permit a nominal profit," he asserted, "they may soon find stores turning from branded goods to lines offering greater opportunities for profitable merchandising venture."

John Schwegmann, Jr., New Orleans supermarket operator, who originated the case that killed the old fair trade law, had declared war on the new one. He served notice that his stores are going to continue to sell its goods at the "same old low prices" and will sell all fair-traded merchandise at below the minimum price.

(Concluded on Page 25, Column 1)

## NPA Moves on Steel Inventory Violators

WASHINGTON, D. C.—A crack-down on manufacturers caught violating the National Production Authority's 30-day inventory limit on steel is promised by Henry Fowler, NPA head.

Fowler said that his agency has started a compliance drive and that local enforcement officials will be aided by "flying squads" from headquarters. They will check manufacturers' steel orders with the amounts of stock already in inventory. Steel mills have also been asked to check on any users out of line in their buying.

## 3 Companies See New Records Set In 1952 Sales

### 2nd-Quarter Philco Sales Reach \$50 Million

PHILADELPHIA—Sales of Philco Corp. for the second quarter of 1952 were the largest for that three-month period in the company's history and totaled \$50,917,000 as compared with \$37,409,000 last year, it was announced by William Balderston, president.

Earnings from operations before taxes in the second quarter of 1952 increased to \$4,604,000 from \$492,000 last year. Taxes this year totaled \$2,656,000 whereas the company had a tax credit of \$1,728,000 in the second quarter a year ago because earnings for that period did not equal

(Concluded on Back Page, Column 4)

### Ideal Cooler Sales Set Record In First Half

ST. LOUIS—Ideal Cooler Corp. reports record sales of its line of beverage and draught beer coolers for the first six months of 1952. Shipments, also, moved at a record pace and for the first six months of 1952 ran 64% of 1951.

The latter year, Louis Weiss, Ideal president points out, set a previous sales high topping 1950 figures.

Second-quarter shipments for this year ran 103% ahead of the same months last year. The third quarter opened with July shipments almost double 1951 shipments despite the twin handicaps of the national steel

(Concluded on Back Page, Column 3)

### Universal Major Elec July Sales Set Record

LIMA, Ohio — Sales volume of Universal Major Elec Appliances, Inc., rose to \$1,212,000 in July, setting a new monthly record, Morton L. Clark, president, announced.

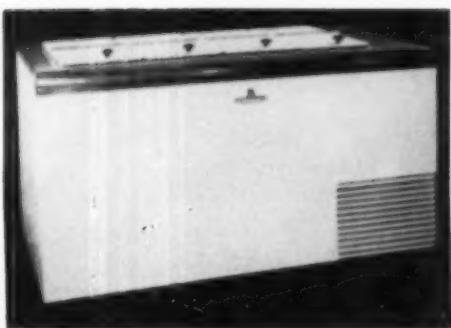
The new mark, he said, exceeded the previous monthly high of \$1,150,000, set in June, this year, by 5%. He explained that the new monthly sales high was set despite a vacation shutdown at the Baltimore plant and the curtailment of certain operations in both the Baltimore and Lima, Ohio plants as a result of the recent steel strike.

Clark said the July sales figure

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FOUR-HOLE model of Ice Cooling Corp.'s line of Koldmaster ice cream cabinets. Other models have six and eight holes. The company will soon introduce an open-type glass display front cabinet with superstructure.

## Ice Cooling Appliance Corp. Introduces 'Koldmaster' Ice Cream Merchandising Case

MORRISON, Ill.—Ice Cooling Appliance Corp., with plant and sales offices here, has announced its entry into the ice cream cabinet field with its line of "Koldmaster" ice cream cabinets.

The company, long-time manufacturer of ice refrigerators and other appliances, said it had completed five years of experimentation and three years of field testing.

The Koldmaster line consists of standard 4, 6, and 8-hole cabinets with either black, white, clear plastic or display type lids. In addition, an open-type glass display front cabinet with superstructure with full-color transparencies will soon be available.

Capacity of the 4-hole model is 20 gal. with two 5-gal. containers and four 2½-gal. containers, besides extra storage space or 245 pint packages.

The 6-hole model holds 30 gal., with four 5-gal. containers and four 2½-gal. containers plus extra storage space or 430 pint packages. The 8-hole models hold 40 gal., with six 5-gal. containers, and four 2½-gal. containers plus extra storage space or 605 pint packages.

The Morrison plant is under the direction of William F. Barnhart, vice president and general manager. The Chicago sales office is located at the American Furniture Mart, under supervision of M. F. Kottmeier, general sales manager.

Ice Cooling Appliance Corp. is a division of City Products Corp. of Chicago, prominent in cold storage, ice manufacturing, ice cream and dairy products manufacturing, brewing of beer, fuel distribution, and other allied products.

## Specialized Mfrs. May Make Own Price Formula

WASHINGTON, D. C.—The Office of Price Stabilization has recently amended Supplementary Regulation 4 to Ceiling Price Regulation 30 to permit manufacturers of machinery and related goods to propose an alternate method of pricing their goods if the established methods are not satisfactory.

The amendment was expected to aid those manufacturers who follow long established specialized accounting practices based on engineering cost studies in determining selling prices. These manufacturers, OPS said, have been unable to use established methods of determining ceiling prices because such methods forced them to make unwarranted deviations from historical accounting practices and resulted in distorted ceiling prices.

Now such a manufacturer can submit to OPS his own method of determining ceiling prices, explaining his reason for doing so and providing certain required data and examples. The resulting price ceilings cannot be put in effect until approved.

## Dallas Air Conditioning Sales Smash Records

DALLAS, Texas—Sales of air conditioning equipment for the first six months of 1952 smashed all Dallas records, according to figures compiled by Dallas Power & Light Co.

Sales of home air conditioners in the period through June were \$9.6 of total sales for the entire year 1951.

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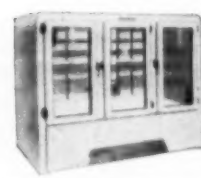
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McCray Means Dependability

McCray Refrigerator Company, Inc., Kendallville, Indiana



PORTABLE fruit drink dispenser means sea-side service at Orchard Beach, Pelham Bay, New York City.

## Surf-Side Service for Thirsty Bathers Makes Life Even More Sunny on Beach

NEW YORK CITY—Thirsty throngs at Orchard Beach on Pelham Bay here this summer have been treated to a new convenience—surf-side service. No longer was it necessary for sun-worshippers to trudge to a stand for a cool drink; they were served right on the beach.

Orchard Beach Catering Co. installed new equipment to make this service practical. At the main cafeteria, a Heat-X-Changer Co. HX120-ETI water cooler was connected with a 3-hp. water-cooled condensing unit. The cast aluminum cooler pre-cools city water to 35° F. and supplies it to a 300-gal. storage tank on a recirculating hookup.

Periodically, the chilled water is

fed into mixing tanks, where it is mixed with syrup to make a still-fruit drink. The mixed drink is kept at 30 to 32° F. by circulating it through a Heat-X HX80-2S with two stainless steel coil circuits.

Portable 3-gal. Thermos jugs and 40-gal. wagons are filled from the tanks and transported about the beach.

On a typical Sunday or holiday, 2,000 to 3,000 gals. of the fruit drink are sold.

The three soda stations in the cafeteria itself are served by a 120-gal. storage tank. Here, three Heat-X SHX25's with stainless steel coils have been installed to handle the chilling problem.

## Inspection Certificates For Warehouses Hit By Court Ruling

WASHINGTON, D. C.—A recent decision of the Supreme Court of the state of Washington indicates that a state or Federal condition certificate covering perishables in storage is of limited value as evidence of proper care, according to the National Association of Refrigerated Warehouses.

The association reported that the ruling was made in a case involving one of its members. A customer of the member had charged that a consignment of onions became rotten and unmerchantable while in the warehouseman's care.

The court ruled that the warehouseman must stand the loss claimed by his customer despite the fact that the warehouse had been granted a satisfactory Federal inspection certificate covering the product in question.

Commenting on the decision, the warehouseman declared that under the ruling, "if a warehouseman secures a certificate showing only 10% decay in late April, a farmer who has suffered market reverses can say that in January when he wanted to market the onions they were rotten and unmerchantable. Therefore, the warehouseman will have to stand the loss."

"The precedent is established and undoubtedly will be used in suits in the future. . . I certainly hope that the rest of the warehousing trade takes note of this decision."

## Drop In Instalment Credit Expected In Second Half

BALTIMORE—Though Commercial Credit Co. here handled \$430,000,324 in retail instalment financing in the first six months of 1952—the highest six months on the company's record—it expects retail instalment financing to decline during the second half.

The firm's semi-annual report said that the drop would be caused by the effects of the steel strike on the production of automobiles and other consumer durables usually sold on the instalment plan.

## Servel, Top Wing Maker, Gets Second Big Contract

EVANSVILLE, Ind.—Servel, Inc., now claimed to be the largest producer of military plane wings in the world, was recently awarded its second multi-million dollar contract to make F-84 Thunderjet fighter bomber wings, it was reported here.

The contract was awarded by Republic Aviation Corp. The wings will be manufactured in a new Servel plant that is expected to reach 100% production capacity this fall.

An Air Force spokesman declared that Servel's wing production program will extend through 1955 at least.

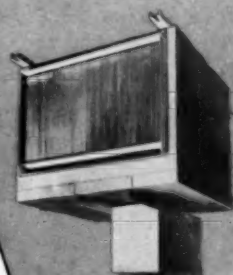
## Capitol Cooling Contract Let

TALLAHASSEE, Fla.—A \$105,965 contract for air conditioning the north wing of the State Capitol has been awarded to Deeb Builders, Inc. here.

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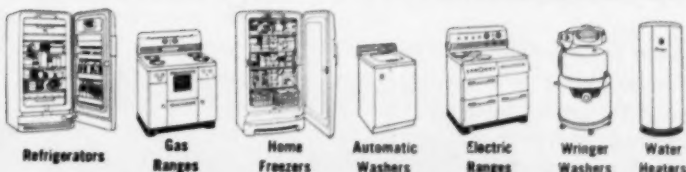
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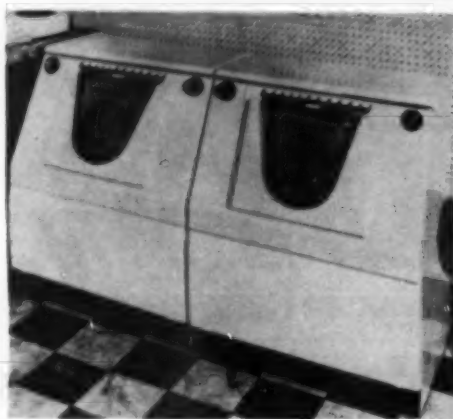


**DIVISION OF BORG-WARNER**

MERCHANDISE MART—CHICAGO 54, ILLINOIS



Inventor with musical box checks dryer with music box on assembly line.



Westinghouse laundry "Twins" feature setting for synthetics.

## Westinghouse Refrigerator, Washer, Dryer--

(Continued from Page 1, Column 4)

plated finished escutcheon is highlighted by a shield of iridescent blue.

The door itself has been enlarged to 14 1/2 by 18 in. to provide more space for loading and unloading. Previously, the door was 14 in. square.

The dryer, either as a 230-volt or a 115-volt model, will retail at a suggested list price of \$235.55. The 230-volt dryer is model D-5 and the 115-volt is model D-5A.

Suggested list price of the new Laundromat washer is \$299.95. Both washer and dryer prices are the same as the models they succeed.

Most novel development on the dryer is the electrically operated music box developed by William A. Wassermann, a laundry equipment engineer. The idea for the musical ending for each drying cycle came from R. J. Bargent, manager of major appliances.

Because no music box company here or abroad had a ready-built box to do the job and none could promise to produce one in time, Wassermann was assigned the task of developing the needed music box by E. O. Morton, manager of laundry equipment engineering.

Wassermann had studied harmonics while taking his master's degree at the University of W. Virginia.

Many tone chambers were designed and checked by the engineer before the right combination of tone bars and tone chambers played the little melody: "How Dry I Am, Nobody Knows How Dry I Am."

Also introduced on the new clothes dryer is a three-way dial for complete control, including settings for new synthetic fabrics that require minimum time and minimum temperatures for safe drying.

The new dial is fully automatic and incorporates a full range of time control for damp drying and for synthetic fabrics. When used as a Dry Dial, the control automatically shuts off the dryer when the clothes

are dried. A thermal control "senses" the dryness of the clothes in the dryer and turns it off.

For damp drying of clothes, the time settings are used. Damp drying of an average load of cottons and linens, for example, requires 25 to 30 minutes. Damp drying of an average load of nylon fabrics will run only 10 to 15 minutes.

A manual resetting type fuse is used instead of the replaceable type fuse. When the fuse opens, it can be reset by pulling a button inside the dryer. A new type drive mechanism using a pulley and belt system provides a positive drive mechanism in the new dryer. The system of pulleys and belts is enclosed.

On the new clothes washer, the control dial gives a flexible control of starting, stopping, repeating, or eliminating any part of the automatic washing cycle to meet the needs of the type of clothes and fabrics being laundered.

It permits any washing time from two minutes to 20 minutes and any water temperature from 100° F. to as hot as the water heater is set to deliver.

The control dial has a special setting—the letter "N" in the word "Rinse"—for the prewashing or the conditioning of clothes. At this point, the clothes get a deep rinse followed by a fast spin for the extracting of water. The pre-rinse or conditioning of clothes is equivalent to 24 hours of soaking.

### WATER-SAVER DIAL MOVED

The Water-Saver dial that controls the amount of water needed for a small or regular load of clothes (3 to 9 lbs. dry weight) has been moved to a more convenient location on the left side of the Laundromat.

The Laundromat has a new fill arrangement with a water trap that prevents back siphonage under any circumstances. The incoming water enters the new fill pipe from the rear and then is carried into the Laundromat inner tub at the side. The fill pipe has a water trap in it that stops any back water action.

The overflow vent hose is mounted at the top front side of the Laundromat and is designed to carry excess steam vapors and excess soap suds (when too much soap is used) to the outside of the appliance.

The outlet for the overflow is at the top of the recessed kick plate on the bottom front of the Laundromat.

### FULL WIDTH FREEZER CHEST

The refrigerator features a full-width freezer chest that freezes and stores 46 lbs. of food and has a full-width storage tray that holds over 100 ice cubes. Ice making equipment includes three 14-cube "Handiout" trays.

The sliding drawer type meat keeper, made of anodized aluminum, provides for storage of 16 lbs. of fresh meat. Two anodized aluminum "Humidrawers" keep one half bushel of vegetables and fruit fresh and crisp "in moist cold that is sealed in by ring-free glass tops."

Shelves in the door provide storage of small packages and beverage bottles. The top shelf has a special guard for tall bottles. An egg shelf, removable for cleaning, provides storage on the door for eggs.

A special set of Hail China refrigerator dishes, given with the new refrigerator, includes a water pitcher, two dishes, and four casseroles for left-over storage. The blue and yellow dishes are ovenproof for baking.

## Chicago Center's Offer of Special Price to Unions Deemed Mostly Malarky

CHICAGO — The Chicago Better Business Bureau recently branded as "mostly malarky" the direct mail advertising on a "union labor buying center" which offered merchandise "at specially reduced prices" to "only union members."

The "center" was set up not long ago by Polk Bros. Central Appliance & Furniture Co., Inc. Sol Polk, head of Polk Bros., said the company is no longer operating the center.

In a report on the center, the local BBB declared that "prospective purchasers were not even questioned as to union affiliation." Furthermore, it was asserted, "featured prices were found to be comparable to or higher than those prevailing elsewhere."

The report cited a sales letter of the center which offered a Cannon towel and sheet ensemble to union members for "only \$22.50" provided they brought the letter or their union discount card to the center. The letter claimed the regular retail price of the ensemble was \$39.95.

But a BBB investigator was able to buy the ensemble at the center for \$22.50 although he had neither the letter nor a union discount card, according to the report. The report added: "The Polk Bros. salesman failed to request any identification whatever."

Checking the merchandise with other stores handling the same brand ensemble, the bureau "found a price of \$22.50 or less prevailed elsewhere. Nowhere was the ensemble price at \$39.95."

Earlier, the bureau said, a shopper priced a refrigerator in the store.

"Listed at \$365.95, the salesman offered to sell it for \$280," the report stated. "The shopper frankly said he was not a union member. The reply was, 'It makes no difference.' The salesman also added that he would get his commission, discount card or not."

## Deepfreeze Appointments-

(Continued from Page 1, Column 3) ing Engineers, comes to Deepfreeze after two years with the Norge appliance division of Borg-Warner as chief engineer of the refrigeration division at Muskegon, Mich.

Prior to this, he was assistant to the engineer of the unit engineering department of General Electric at Erie, Pa. For 16 years, Hornaday was associated with Frigidaire at Dayton, Ohio in research and development posts.

**FOGEL**  
The Only  
and  
Original  
**"ANGLE-VISION"**  
COUNTER TOP FREEZER  
"Successor to the Flat-top"  
MADE ONLY BY  
**FOGEL**  
REFRIGERATOR CO.  
5400-A EAGLE ST. PHILA. 37, PA.

## FACTS ABOUT COPPER'S ECONOMY

Model showing food cooling system with underground condenser grids of copper tubing.



## copper tubes form underground refrigeration condenser

### ANACONDA PRODUCTS FOR THE REFRIGERATION INDUSTRY

Copper Tubing	Hard Copper Tube cut to length
Refrigerator Tube	Copper Water Tube in coils or straight lengths
Boiler Tube	Vibration Eliminators
Thermal Expansion Bulbs	Flexible Metal Conduit
Formed Tube Parts	
Fittings	

Heat from these display cases is disposed of through tubing buried below basement floor.

Installing condenser grid in wet clay prior to pouring basement floor.

When discussing the refrigeration system of a planned new supermarket, the owner stipulated:

- 1—Low operating costs
- 2—Minimum use of city water
- 3—Dry basement storage facilities

The Charlton brothers of the Temperature Equipment Company, Hartford, met all 3 requirements very successfully and to the owner's complete satisfaction.

The system was devised so that earth instead of water is used as the cooling medium. Copper tube grids, installed in the ground before the concrete basement floor was poured, serve as the condenser. The surrounding damp earth efficiently absorbs the

heat and enough warmth reaches the basement floor to prevent the accumulation of moisture on its surface.

In the first year of operation the owner estimates a saving of \$750 in water charges alone, plus the added savings afforded by the dry basement in eliminating moisture damage to stored goods. It's another example of the versatility of ANACONDA Copper Tubes for all types of plumbing, heating and refrigeration piping.

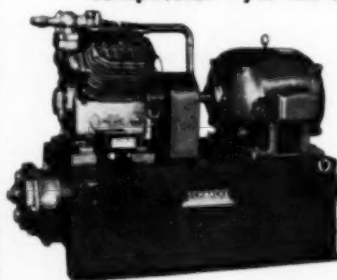
A complete description of this installation will be gladly forwarded on request. The American Brass Company, Waterbury 20, Connecticut. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.

B225A

modern piping calls for **ANACONDA** copper tubes

## DIRECT DRIVE

The industry's smallest, most compact compressor—yet the most rugged.



Direct Drive Compressors are available in 15 H.P., 30 H.P. and 60 H.P.

Compactness, efficiency, and low price are advantages in all Schnacke compressors and condensing units from 5 H.P. to 60 H.P.

Ideal for multiple installation in close space requirements.

Two Schnacke 30 or 60 H.P. compressors require no more space than ordinary 100 to 125 H.P. compressors. They are ideal for multiple installations up to 350 tons, and provide many advantages of automatic control and economy. Schnacke production manufacturing methods make possible the highest quality, including bronze steel back bearings, force feed lubrication, and rugged design and construction, at lower cost.

Write for complete, convincing facts.

**SCHNACKE, INC.**

1101 N. Governor St.

Evansville, Ind.





## Heat Brings Sell-Out of G-E Room Coolers; 6 Weeks' Sales Equal Previous Half Year's

LOUISVILLE, Ky.—The recent heat wave brought a sell-out of General Electric room air conditioners, Harold B. Donley, general manager of G-E's room cooler department, said.

Donley added that his department did as much business with its two models— $\frac{1}{2}$  and  $\frac{3}{4}$  hp.—in a six-week period during the heat wave as it had during the previous six months.

He said the company's sell-out was typical of the industry and represented a growing consumer acceptance of room air conditioners as a necessity for better and more comfortable living.

He described this year as a turning point in this respect. During the past few years, he explained, more and more office and industrial buildings have been air conditioned and more and more working people, accustomed to mechanical air conditioning on the job, are demanding it through room air conditioners for their homes.

### INDUSTRY SALES MAY HIT 350,000 UNITS

Industry-wide sales of room air conditioners in 1951 approximated 250,000 units, Donley said. This year they are expected to reach 350,000.

Next year's forecast for the industry is 400,000 units, an increase of about 14%, the G-E executive said. Without disclosing the company's production or sales unit figures, Donley said the company expected to boost its room air conditioner business by 35% in 1953 in comparison with the 14% rise for the industry.

He pointed out that 1952 is the first year since before the war that General Electric has merchandised room air conditioners on a national scale. Last year, he added, the company sold its room air conditioners on a limited basis in 14 markets.

Public response, he said, indicated the company had a product that met the demands of the consumer. The acceptance in the national market this year, he added, has borne out last year's test experience.

By 1961, Donley said, about 1,000,000 room air conditioning units are expected to be sold annually by the industry, with the private home being the principal market. Donley said it is anticipated that the room air conditioner will come to be as much of a standard appliance as regular kitchen and laundry equipment.

Telling sales points will include ease of installation, size of unit, and degree of automatic control, he explained.

The southwestern section of the country, with its greater periods of hot weather, and metropolitan areas where houses and apartment houses are close together and open-air expanses are rare, currently are the best sales fields, Donley reported.

Room air conditioners pose marketing problems not faced by many other appliances, said Donley.

One that must be met annually is the relatively short selling season which comes during hot weather. Production schedules must be set well in advance. And manufacturers virtually have to employ crystal balls to anticipate what may be expected in the line of summer temperatures, he noted.

Another specific problem arising from the limited selling season is how orders should be filled, he added. Should they be filled on the basis of first-come first-served, or should quotas be established for various sections of the country?

### PROBLEMS OF SETTING UP QUOTAS

If quotas are set up and then one section of the country escapes a hot spell, units which might have been sold elsewhere remain in inventory, he explained.

On the other hand, if sufficient inventory is not set aside for mid-summer orders from northern areas, that section of the market may be lost to other manufacturers.

Until an appreciable degree of market saturation is reached, he said, that problem will be the big one for each manufacturer.

## Ad Offers To Take Sting Out of Hot Offices

DETROIT—"Don't let the heat slow you down any longer," business and professional people were advised in a promotional letter mailed out recently by James & Roach, Inc., local Carrier distributor. "We'll show you how to take the sting out of summer."

Headed "Cool Magic for Hot Summers," the letter said:

"You spend one-third of your time at the office. That's a long while to put up with the sultry heat and the sticky humidity of summer. Not to mention the dirt, dust, and din of outside traffic that come in through open windows."

"There's an easy way to end this unpleasant situation. It's with a Carrier room air conditioner. Installation can be made easily and quickly without interference."

"Then you'll work in comfort . . . at top efficiency. You'll breathe air that's cool and clean. You'll feel better . . . be healthier . . . more able to take on a good day's work."

The letter urged readers to telephone the company or mail an attached business reply card for further information. Also enclosed was a glossy print of a Carrier window unit with an additional message, including the price of the unit and the distributor's telephone number, on the back.



CONDITIONERS mounted in upper windows allow the show windows and wall space to be kept free for displays of jewelry.

## Installing Conditioners In Upper Windows Saves Display Spaces for Jewelry Merchandising Uses

WINTER HAVEN, Fla.—Installation of two Mitchell  $\frac{3}{4}$ -hp. air conditioners in the Paul Angle jewelry store here allows walls and windows to be kept clear for rich displays of silver and jewelry while keeping the store cool even in the hottest weather.

The two units are mounted in two small windows above the store front. Mounted 9½ ft. above the floor level, the units are controlled by special remote "on-off" switches mounted at a convenient height.

The two units were installed by the

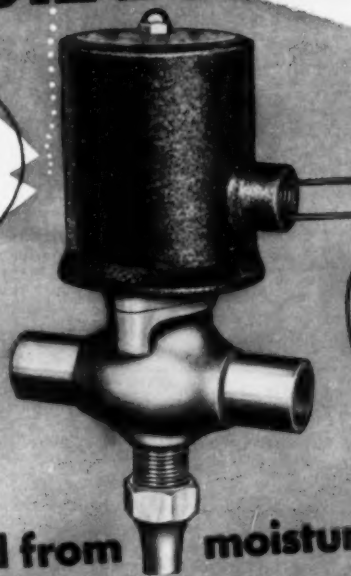
Ellsworth Electric Co., Mitchell dealer for this area. According to a company spokesman, the original specifications supplied by the jeweler presented a knotty problem until the small upper windows were discovered during the routine air conditioning survey.

"From then on, it was easy," he said. "The windows were the exact size to take the units without cutting or refitting. The units pull fresh air into the store direct from outside without ducting and provide a cooling power equivalent to 1½ hp."

# STOP COIL BURN-OUTS!

ALCO  
SOLENOID  
VALVES

are protected from moisture



You can safely install Alco Solenoid Valves in low temperature and high humidity rooms without worrying that moisture may cause coil failure.

The coils are impregnated with a special varnish that makes them moisture and corrosion resistant.

As a test, Alco Solenoids have been continuously operated under water for 18 months without breakdown!

Alco Solenoid Valves are tight seating, packless and quiet. You and your customers will like them.

Complete information on applications is given in our Bulletin 173. May we send you a copy?

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Designers and Manufacturers of  
Thermostatic Expansion  
Valves; Evaporator Pressure  
Regulators; Solenoid Valves;  
Float Valves; Float Switches.

**ALCO VALVE CO.**

853 KINGSLAND AVE. • ST. LOUIS 5, MO.

**TYPHOON**  
Air Conditioning  
ENGINEERED FOR EVERY NEED  
PRICED FOR EVERY BUDGET

- Air Conditioning Units  
1½-20 tons
- Multi-Packaged Systems  
Up to 60 tons
- Prop-R-Temp Heat Pumps  
2-20 tons
- Evaporative Condensers
- Packaged Water Chillers

TYPHOON AIR CONDITIONING CO., Inc.  
794 Union Street, Brooklyn 15, N. Y.



## HOME & FARM FREEZERS



# Questions and Answers on Freezer-Food Plan

Acceptance of New Way of Life on West Coast Seen as Result of Zealous Retail Selling Effort by Dealers in These Parts

By Phil B. Rodcher

LOS ANGELES—Probably the best way to sum up any analysis of "freezer-food" merchandising in California is to say that zealous selling efforts by retailers and their salesmen are making "freezer living" an accepted way of life in these parts.

Previous articles in this series should have made it clear that this remarkable acceptance of a new concept in food buying and storage habits was not something that the public just took to naturally, but was the result of some of the best-conceived and well-executed specialty selling tactics ever developed to sell any idea or product.

This final article will attempt to elaborate upon some of the features of "freezer-food" merchandising plans which were mentioned in previous instalments, but which may not have been entirely clear to readers.

What is the So Called Radiation Effect in "Freezer-Food" Plan Selling? The "radiation" effect merely means that out of one sale, as many as five others may be developed. This

is done by "using the user," paying bonuses for leads, making the sales pitch before three or four families at

This is the fifth and final article in the series of articles analyzing the reasons for the success of "freezer-food" plans on the West Coast.

one time (although ostensibly selling only the one couple), having the salesman or a home economist call after the freezer has been delivered, to put the user on the "right track" and to get the story over to any visiting neighbors or relatives.

What Kind of Insurance and Guarantee Plans Go Along with "Freezer-Food" Plans? The conventional type of warranty on the freezer and the usual type of insurance against food spoilage in case of a failure of the freezer to operate properly, are in general use. In addition, most of the responsible operators "guarantee" the quality of the food, on a money-

back or exchange of food basis. This is usually done by the dealer on his own, wherein he will have some sort of understanding or agreement with his food provisioner.

One operator also provided "insurance" that the food-plan buyer could continue to buy foods at special prices even if the dealer were to go out of business.

Why Is the Six-Months Period Usually the Maximum Used for the Payment of the Initial Purchase of Food? Primary reason is that the lending institutions believe that to be the longest period advisable for time payments of food. Furthermore, it is about the time in which the original purchase of food—generally in the neighborhood of \$200 and including a side of beef—will be consumed.

What Does a Lending Institution Like the Bank of America Require as Evidence That the Food For Which It Is Lending Money Is Actually

## Suggested order of BIRDSEYE FRUITS & VEGETABLES

	Doz. Cost	Doz. Retail		Doz. Cost	Doz. Retail
6 Asparagus Cuts	\$4.45	\$5.52	6 Peas & Carrots	2.35	2.88
6 Broccoli	2.69	3.36	6 Spinach	2.47	3.00
6 Cut Corn	2.20	2.76	6 Succotash, Lima	2.90	3.60
6 Corn on Cob	2.69	3.36	6 Strawberries	4.00	4.68
6 Green Beans	2.48	3.00	6 Sliced Peaches	2.45	3.36
6 Limas, Baby	3.48	4.32	12 Orange Juice	2.04	2.52
6 Mixed Vegetables	2.47	3.00	4 Fillet of Sole	7.80	8.04
12 Green Peas	2.43	3.00	2 Fruit Pies	7.80	8.88

FOOD PLAN No. ....

## MEAT CUTTING INSTRUCTIONS

NAME .....	TELEPHONE NO. ....
ADDRESS .....	SIZE OF FAMILY: ADULTS ..... AGE 1-6 ..... AGE 7-10 ..... AGE 11-15 .....
BEEF: Thickness of Steaks: 1/2" 3/4" 1" 1 1/4" 1 1/2"	Size of Roasts: 3-4 lbs. 4-5 lbs. 5-6 lbs.
Prime Rib Section: Steaks Grind Roasts Boneless roast Boiling beef	
LAMB: Chops: 1/2" 3/4" 1" 1 1/4" 1 1/2"	Shoulder: Roast Small Roast & Chops
PORK: Chops: 1/2" 3/4" 1" 1 1/4" 1 1/2"	Roasts: 2 lbs. 2 1/2 lbs. 3 lbs. 3 1/2 lbs. 4 lbs. 4 1/2 lbs. 5 lbs.
	Whole Halves Butt & Shank Roast with Center Slices

THIS form used by Polar Ice Cream Service presents a suggested order of fruits and vegetables as well as a section for meat cutting instructions.

Being Purchased? An invoice covering the food, signed by both purchaser and seller, is required by the bank. It need not be too detailed, but must be more than a mere statement that "\$250 worth of food was purchased."

Some Operators Have Elaborate Sales Kits. How Do They Keep the Floater Type Salesman Who May Work a Few Days From Making Off With These Kits? By the simple device of having the salesman make a substantial cash deposit for the kit when he receives it.

Is There Any Special Method Used in Cutting, Wrapping, and Marking Foods Sold to "Freezer-Food" Plan Users? James Jennings of Amana Foods & Freezers, North Hollywood (one of the larger operators) is primarily a meat man. He cuts 8 ribs to the forequarters, whereas the usual market procedure is to cut 7. This enables him to sell split sides. He double wraps all meats with a locker wrap paper so that no two pieces of meat touch each other. Each package is dated and marked as it is.

(Concluded on next page)

## POLAR ICE CREAM SERVICE

301 WEST G STREET • PHONE MAIN 5450  
San Diego 1, California

## FOOD PLAN FOR HOME FREEZER OWNERS

Now the best corn-grain fed beef, pork, lamb, poultry, and frozen fruits and vegetables within the budget of all families. Start today to live the new FOOD PLAN way.

You can EAT MORE FOR LESS—AND BETTER TOO!

FOOD PLAN No. 1—for family of 4 or more persons - - - Cost \$275.00

Approximately 375 lbs. of Meats plus \$25.00 Frozen Fruits and Vegetables

BEEF: 1/2 U. S. Choice Grain-Fed Beef

- 10 Top round steaks
- 5 Swiss steaks
- 1 Sirloin tip roast
- 6 Sirloin tip steaks
- 2 Rump roasts
- 8 Sirloin steaks
- 12 T-Bone steaks
- 25 lbs. ground beef

LAMB: 1/2 Spring Lamb

- 1 Leg
- 8 Small loin chops
- 4 Large loin chops
- 8 Rib chops
- 1 Shoulder roast
- or
- 9 Shoulder chops
- 3 lbs. stew

POULTRY: Pan-Ready Fryers

- 6 Cut & Drawn caponette fryers

PORK: Eastern Corn-Fed

- 2 Loin roasts
- 40 Chops
- 5 lbs. sausage
- 1 Ham
- 1 Butt roast
- 1 Shank roast
- 4 Center slices
- 10 lbs. bacon

FRUITS & VEGETABLES—BIRDSEYE

Approx. 100 pkgs.—your choice

## SUBSTITUTIONS ALLOWED

The above quantities are figures taken from an average meat cut. However, the quantities will vary with the thickness of steaks and size of roasts.

FOOD PLAN No. 2—for family of 2 or 3 persons - - - Cost \$200.00

Approximately 275 lbs. of Meats plus \$25.00 Frozen Fruits and Vegetables

BEEF: 1/2 Hindquarter—1/2 Forequarter U. S. Choice grain-fed (1/2 of cuts above)

LAMB: 1/2 Spring Lamb (See cuts above)

PORK: Roasts, chops, sausage, ham, bacon (see above)

POULTRY: 6 pan-ready caponette fryers

FRUITS & VEGETABLES: Birdseye—approx. 100 pkgs.—your choice.

## SUBSTITUTIONS ALLOWED

FOOD PLAN No. 3—for family of 2 or 3 persons - - - Cost \$200.00

Approximately 239 lbs. of Meats plus \$25.00 Frozen Fruits and Vegetable

BEEF: U. S. Choice Hindquarter Grain Fed Beef

- 10 Top round steaks
- 5 Swiss steaks
- 1 Sirloin tip roast
- 6 Sirloin tip steaks

- 2 Rump roasts
- 8 Sirloin steaks
- 12 T-Bone steaks
- 5 lbs. boneless stew
- 12 lbs. ground beef

LAMB: 1/2 Spring Lamb (See cuts above)

PORK: Roasts, chops, sausage, ham, bacon (see above)

POULTRY: 6 pan-ready caponette fryers

FRUITS & VEGETABLES: Birdseye—approx. 100 pkgs.—your choice.

## SUBSTITUTIONS ALLOWED

THREE separate plans are outlined on this sheet. The first is for a family of four and the second and third are designed for families of two or three persons. Prices are included for each plan.

## Opportunity for a Technical Education In

- AIR CONDITIONING • REFRIGERATION
- HEATING and VENTILATING

Evening Classes Begin Sept. 15th  
for full information write, phone or visit

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(division of LAWRENCE INSTITUTE OF TECHNOLOGY)

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Aluminum evaporators... bright, color-anodized aluminum refrigerator shelving... door trays... aluminum crisper pans... and other components for refrigerators are made by Reynolds Aluminum Fabricating Service. Reynolds facilities are geared for mass production of these items to quality standards exceeding industry requirements. Reynolds will be glad to work with you on your present needs or on development work for future application. Contact your nearest Reynolds office listed under "Aluminum" in your classified telephone directory, or write Reynolds Metals Company, Parts Division, 2053 South Ninth Street, Louisville 1, Kentucky.



# REYNOLDS ALUMINUM FABRICATING SERVICE

BLANKING • EMBOSING • STAMPING • DRAWING • RIVETING • FORMING • ROLL SHAPING • TUBE BENDING • WELDING • FINISHING



## Work Sheet Used for Meat Cutting Instructions

PIGGY WIGGLY FOOD PLAN  
MEAT CUTTING INSTRUCTIONS

Number in Family.....Adults.....Children.....

## BEEF

Steaks.....Inches thick: Wrapped.....per package  
 Roasts.....pounds each  
 Ground.....pounds per package  
 Stew.....pounds per package  
 Short Ribs.....pounds per package

## LAMB

Chops.....Inches thick: Wrapped.....per package

## PORK

Chops.....Inches thick: Wrapped.....per package

Roasts.....pounds per package

Send bones, check Yes.....No.....

Other Instructions.....

Order taken by.....

All meats will be double wrapped and the contents of each package properly marked on the outside of each package and dated.

Allow three days to properly process all meat orders.

We guarantee all our products to be of the finest quality.

THE MILGATE PLAN  
14800 E. 14th St., San Leandro  
Lockhaven 2-3076

## HOME FOOD BUYING SURVEY

Name.....  
 Address.....  
 City..... Phone.....  
 No. in family..... Adults..... Children.....  
 Major Food Source.....  
 Distance from home.....  
 No. weekly shopping trips.....  
 Budget?.....  
 Eating Habits.....  
 Average weekly food bill:  
 Meat, Poultry, Fish..... \$.....  
 Vegetables, Fruits.....  
 Juices, Desserts.....  
 Staples.....  
 Dairy.....  
 TOTAL \$.....  
 Mo. Income..... House.....  
 Car..... Other.....  
 Age of Reeler..... Make..... Size.....  
 Space available: Kitchen.....  
 Other..... Gar..... Util.....

At no obligation nor cost to me, please prepare a Wholesale Food Purchasing Program based on the above information which will enable me to buy more food of top grade quality without increasing my present food expenditures. This may be submitted to me on:

DATE..... TIME.....  
 SIGNATURE.....

SAMPLE work sheet used by Piggly Wiggly to handle meat cutting details of the food order portion of the freezer-food plan. This provides complete, compact data on meat requirements of individual family.

SURVEY form allows salesman to determine what prospect's family requirements will be and how large a freezer can be installed.

## Freezer-Food Plan Questions, Answers--

(Concluded from preceding page)

cut. He leaves the bone in roasts, etc., because they are sold that way generally in retail stores and he has found that it reduces complaints from the customers.

**How Many Sales Presentations is the Salesman Asked to Make in a Week?** Most sales managers ask a minimum of 10 presentations. It is thought that two pitches an evening are about all a salesman can be expected to make. Not much encouragement is given to the idea of making "call-backs" unless it is merely to clean up some details of the order.

**Delivery and Service:** Amana freezers sold under the plan in the Los Angeles area are delivered direct from the Amana Freezer Distributor warehouse. Independent refrigeration service contractors made the delivery and installation of the freezer, and assume responsibility for the first year warranty on the freezer, at a cost of a little over \$1 per cu. ft. of

freezer. This includes delivery in a 25-mile radius, cost being greater beyond that point. Most dealers absorb this cost, although some add it on to the selling price.

**What Are the Major Complaints Voiced by Those Who Have Bought 'Freezer-Food' Plans?** Actually there are very few complaints, but a neutral observer, the Bank of America, lists these as most prevalent:

- (1) Overemphasis of the food savings story, to the point where some salesmen have emphasized that food purchases would become negligible.
- (2) Misrepresentation through advertising of savings possible and other elements of the plan.
- (3) Misrepresentation of the "bonus" plans for submission of prospect leads.
- (4) Ballooning of prices and addition of hidden installation and other charges after the sales contract was signed.

## Freezer, Frozen Food Boom Seen In Mexico; Education, Advertising Campaign Under Way

MEXICO CITY, Mex.—The home freezer and frozen food industries "are on the threshold of huge development in Mexico."

That's the belief of Morton I. Davis, Jr., president of American Refrigeration Products, S. A. de C. V., manufacturer of commercial refrigeration equipment and a pioneer freezer producer in this country.

Davis made the prediction in reviewing the history of the home freezer in Mexico.

"The stimulus of the last war on the growth of the freezer industry in the United States had little or no effect on Mexico," he said.

"During the war and in the two or three-year period following, the only freezers in use in Mexico were those brought with them by American residents. Small quantities were imported but not to an extent that there was awareness of the product as a new home appliance.

"At the same time, frozen foods were unknown, although a number of packing plants were being built and shipping their entire production to the United States.

"In 1948 Sears Roebuck, having initiated its expansion program in Mexico with its first store, had imported the largest individual shipment of Coldspot freezers that had ever been brought into the country. This shipment, consisting of 200 6-cu. ft. freezers, was quickly sold.

"Sears, anticipating the need for domestic suppliers for its expanding group of stores, initiated talks with American Refrigeration Products which resulted in a plan for this company to manufacture the first home freezers in Mexico. Sears was extremely helpful to us technically, sending Gil Strunk, chief engineer, Sears Dept. 647, for an extended trip, placing at our disposal their enormous experience.

"For two years we have been producing a 6-cu. ft. Coldspot freezer. Due to pioneering educational work on Sears' and our part there has been a steadily growing acceptance of freezers.

"Recently we introduced a 7-cu. ft. model under our own trade-mark. This model has more than fulfilled the faith and investment which we had put into it. Sales are far greater than optimistic original estimates.

"In process we now have for near future production a 4-cu. ft. model under the American trade-mark, a 9-cu. ft. model under the Coldspot trade-mark, and a 14-cu. ft. American model.

"We have started a fairly extensive advertising and educational campaign, consisting of folders, question-and-answer booklets, newspaper ads, a 32-page manual on care and use of freezers, demonstrations in cooperation with our distributors and dealers in all parts of the country.

"The frozen food industry is beginning to recognize the potential market for their products in small home packs and a number of packers are starting experiments and diverting a small part of their production from export to domestic sale. We believe that within a year this tendency will grow into tremendous proportions."

Freezer Dealer Ties Up  
With Food Retailer  
In New Approach

ALBANY, N. Y.—A new approach to the home freezer promotion question in which a direct tie-up was made with a local retail food chain was employed by the Economy Appliance Co. here.

Instead of working with a wholesale food outlet, Economy Appliance tied up with the Empire Super Markets.

Under the plan, the customer paid \$39.95 down and received:

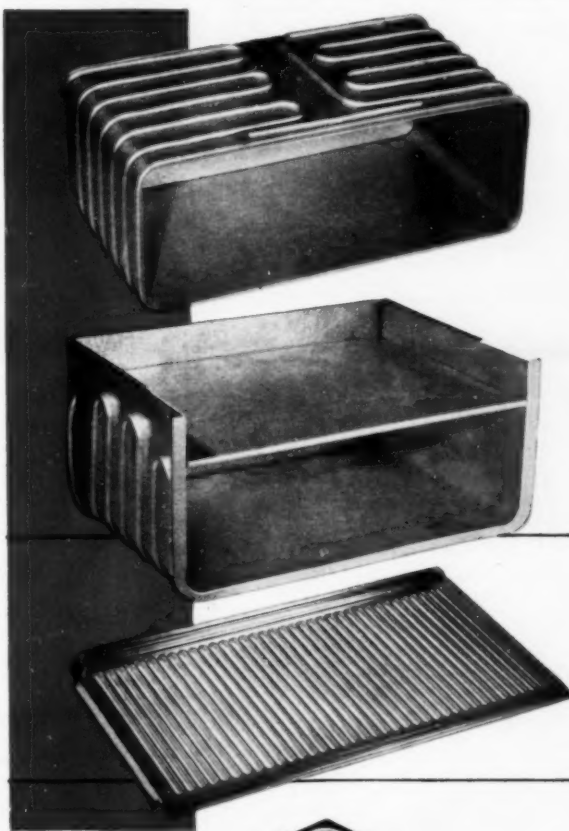
1. A 15-cu. ft. home freezer installed in the home, with monthly payments to fit the budget.
2. \$100 worth of frozen foods of the customer's own choice.
3. A discount on any future purchases of frozen foods at any Empire market.

Economy Appliance launched the promotion with a half page newspaper advertisement containing a coupon which an interested person could mail in to secure complete details on the offer.

Nashville June Freezer,  
Refrigerator Sales Double

NASHVILLE, Tenn.—Home freezer sales during June in Nashville jumped 115% over the same month last year while refrigerator sales registered a 110% gain, the Nashville Electric Service reported recently.

Local dealers sold 103 freezers in June and 48 a year ago. Refrigerator sales numbered 1,434 last June and 683 in 1951.



## EVAPORATORS

For evaporators no other material offers the serviceability of rustproof aluminum and the efficiency of its rapid heat conduction. Embossed aluminum sheets add to evaporator rigidity and provide surfaces which resist scratching. Anodizing provides positive corrosion resistance. Reynolds production operations are largely handled on automatic equipment, assuring consistent high quality.

## SHELVING

One-piece, color-anodized aluminum shelving made by Reynolds provides rigid construction plus a corrosion-proof and chip-proof finish with eye-catching consumer appeal.

## PANS

Crisper pans in bright, anodized aluminum offer crackproof, wear-resistant durability.

## TRAYS

Bottle, dairy, egg and utility trays are produced by Reynolds with color-anodized trim to manufacturer specifications.



DEAN  
COLD  
PLATES

ANY SIZE  
ANY SHAPE  
MOST METALS

COLD PLATES FOR: Ice Cream Cabinets, Soda Fountains, Farm Milk Coolers, Farm Freeze Cabinets, Window Displays, Food Counters, Sub-Zero Applications for Industrial Chilling.

DEAN PRODUCTS, INC. 1042 DEAN STREET, BROOKLYN 16, N.Y.  
Sterling 9-5400

Write for  
Technical  
Data Book

## INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1) through his thinning hair, and nudged up close.

"Darling," I whispered, "you can't win 'em all, but you have me."

"Know what that Durocher did? He pushed me away and griped."

"Honey, I'd of traded you willingly for a solid triple at least twice this afternoon."

"That's why I love him so much. He's a real man."

Summoned by the Astor hotel's Bob Christopberry, a New York policeman grasped the situation at once. Teetering on a fifth-story ledge of that hotel was a hammy character who threatened to plummet onto Times Square. The policeman tried to play for time until firemen could arrive with a net.

"Don't jump," begged the cop. "Lotsa people would be sorry if you did. Think of your wife."

"I hate her! That's why I'm gonna kill myself," shouted the would-be suicide.

"Think of your friends, then."

"Ain't got no friends. I hate everybody and they hate me."

"All right, wise guy. Why be a schmo? Think of yourself. There's lots of fun you can have. Take for instance, The Giants are playing the Dodgers at the Polo Grounds and..."

"To hell with the Giants. I hate 'em."

"Ye-a-ah," razzed the copper, walking away. "Go ahead and jump, ya Brooklyn Bum."

Neither fast-on-the-trigger Frankie Frisch nor "Lippy Leo" Durocher ever outdid Dick Bartell (who was sometimes called "Rowdy Richard") as an umpire-baiter in Brooklyn.

In the prime of his baseball-playing life Bartell disputed a called strike so vociferously that Umpire Art Paparella told him to get out of the park.

"Rowdy Richard" did, jawing all the way to his dugout. As a departing insult, he committed a familiar gesture.

Umpire Paparella was even angrier than Bartell.

"You low-life," he bellowed, "did you put your thumb-and-fingers to your nose?"

"Mister Paparella," bowed Dick, in mock ceremony, "you were so wrong on that third strike I'm sure you didn't see what you thought you saw me do."

### Second Sight

Ideas for original newspaper photos are scarce as new excuses for divorce. Just try and figure out a different way to pose Phineas T. Goodfellow handing over a check to the Chairman of the Community Chest Fund, or Ted Williams receiving a plaque for being the Most Valuable Player in the American League.

So impossible an assignment for a photographer can be likened unto Sam Sportafan who worked so hard

over his ledgers at the office that he couldn't keep his peepers open at home that night.

"Honeybunch," he begged his wife, "please get the sports section and read me the account of the Red Sox game."

Stumbling over an odd word here and there, Honeybunch did her dutiful best, including a recitation of the box score.

"And at the top of the page," she added, "is a picture of Ted Williams after he'd hit his home run."

"Umm," grunted Hubby. "Junior Stephens is looking the other way, but Bobby Doerr is shaking Ted's hand, and you can see the umpire's broad back, and..."

"Sugarplum," interrupted his spouse. "You made me read all that just as a joke. You saw it before."

Sighed Sugarplum: "Yes, I've been looking at that same picture for the last five years."

### Foggy Sight

Next to Babe Ruth's classic homer against the Cubs in a World Series—the one he announced in advance by pointing toward the bleachers after letting two called strikes go by—the most rehearsed moment in baseball annals is Grover Cleveland Alexander's strike-out of Tony Lazzeri to win another Global Championship.

Old Alex had pitched and won his game the day before and, they say, celebrated all night. Meusel, Combs, and Gehrig were on base with two out when Rogers Hornsby, manager of the Cardinals at the moment, summoned Alexander.

It's schoolboy history that the age-

ing Alexander was a tired and creaky caricature of his former self, but struck out Lazzeri anyway. Not so well known is what Hornsby said to him:

"See all those men on base? No place to put Lazzeri, is there? Let's get him out."

That logic appealed to and penetrated into Alexander's subconscious mind, and Lazzeri was "got out."

### Meal Ticket Is a Hammock

Entering a Pullman car for the first time in his life, the rookie pitcher gazed around with honest curiosity as the porter made up the berth. Curious about the green net hammock which was draped along the window-side of his berth, he asked what the heck that danged thing was "fer."

"That little green hammock," volunteered a long-time member of the team, "is for pitchers to rest their 'soulbones' in while they sleep. It's made special for pitchers when they travel overnight on trains."

Accepting this plausible explanation at face value, the gullible young rookie spent a sleepless night trying to keep his "salary arm" in the Pullman sling. The effort almost ruined his career. After that agonizing experience, several days passed before this rookie pitcher could get anybody out in subsequent exhibition games. And "Ty" Cobb, who was then manager of the Detroit Tigers, released him.

He came back, though. His Giants teammates used to call him "Old Meal-ticket." In one memorable All-Star game, he struck out Foxx, Ruth, Gehrig, Simmons, and Cochran in succession.

### Unbelievable Sight

In his day Clyde Milan was a noted base-stealer. Currently he's stealing prize rookies away from other American League clubs and conditioning them for the Washington Senators.

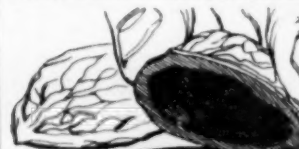
Like most fishermen, Clyde maintains that the best ones slip off the hook. He cites the time he was driving through the Southwest and had a flat tire. A gangly country boy mosed up and offered to help him fix it. Clyde's wheel-jack broke down, but that didn't faze Rory Rawbone. The latter simply lifted up the back end of the car and held it until Milan could change wheels.

While Clyde was recovering from his astonishment at this feat of strength the lad picked up a rock with his left hand, threw it toward a tree forty yards distant, and plummeted a squirrel off a topmost branch.

"Sonny," gulped the Washingtonian, "looks to me like you'd make a good southpaw pitcher. Ever play baseball?"

"Not since I was a pup," returned the strapping young man. "Broke my right arm when I was nine and ain't been able to throw good since."

Whereupon he loped off into the woods to retrieve his squirrel, and Milan claims he couldn't catch up with him.



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Specialists in  
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DOWAGIAC, MICHIGAN

### Foresight

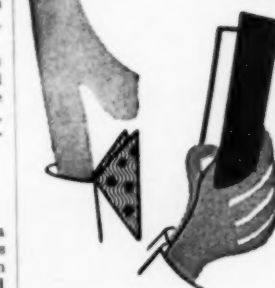
Phil Wrigley's Cubs trained at Phil Wrigley's Catalina Island in the spring of 1950. That was customary, but this time there was a difference. The chewing-gum magnate treated his ballplayers to a week's all-expense-paid vacation on that glamorous isle before the workouts began.

First day of practice wasn't half over when Hank Edwards loomed into the dispensary.

"You ain't hurt," Andy cut him short. "You ain't signed your contract yet, and you guys never get hurt before you get Mr. Wrigley's John Hancock."

"Stories of the Week"

In Handy Form



In response to hundreds of requests from AIR CONDITIONING & REFRIGERATION NEWS subscribers, the conductor of its "Inside Dope" column has collected and grouped his best "Stories of the Week." They are now available in convenient book-form for your reading and working pleasure. The book is entitled: "You'll Love This One."

Everyone will enjoy reading this book, we hope, but for the salesman—and for anyone who may be called upon to "say a few words" at a meeting—it should have especial appeal.

Here's why: this book of good stories you can tell is printed on thin paper, bound in flexible leatherette, and designed to fit neatly into your inside coat pocket.

While waiting in an ante-room to see Mr. Bigdome, the sales representative can thumb through it and pick out four or five pertinent jokes which are guaranteed to put his prospect in a good mood.

The man about to make a speech—or one who figures he may be asked to rise and shine extemporaneously—can consult it surreptitiously while the toastmaster is doing his stuff. Although it's jam-packed with grand tales, it isn't bulky. Rather, it's unobtrusive. Looks more like a leather wallet than a book.

You can be the life of the party if you've memorized some of the anecdotes in this book. Everybody loves a good story well told—and all the jokes in this book have been tested on tough audiences, both large and intimate, by the author.

Within its 236 thin-paper pages more than 200 sure-fire laughs are presented. You can use it profitably, and so can your friends. It's handsomely turned out, and will make an appreciated gift any time.

PRICE: \$1.00

Write for quantity discounts on 5 or more copies.)

Order directly from: Business News Publishing Co., 450 West Fort St., Detroit 26, Mich.

BUSINESS NEWS PUBLISHING CO.

450 W. Fort St., Detroit 26, Mich.

GENTLEMEN: Please send me ..... copies of "You'll Love This One" at \$1.50 per copy. ☐ Check enclosed. ☐ Please bill me.

Name.....

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8-18-52

Make "dog-days" your  
MONEY-MAKING DAYS  
with SERVEL  
Supermetic!

TYPICAL  
SUPERMETIC FEATURES  
FOR FASTER, EASIER SALES!

- Simple, compact — takes up less space
- Built-in lubrication — no manual oiling
- Cushioned quiet — special mountings prevent vibration
- Oil-free refrigerant — no oil "slugging"
- Ruggedly built — rust-resistant bronze finish

Summer profits keep climbing when you sell SERVEL. No installation complications, no costly "call backs" when the job is done. And, you can get a SERVEL Supermetic quickly—any size from 1/4 to 3 HP—direct from your nearby Servel Wholesale Supplier. One step and you have everything you need to install a condensing unit for your customer immediately.

START SELLING SERVEL—the hermetic with the low cost Factory-Extended Warranty. Point out to users of worn-out compressors how they're courting trouble—and costly hot weather losses. Recommend a replacement installation that rules out "time out"... that makes every buyer another booster for your refrigeration business.

**Servel**  
**SUPERMETIC**

Models for every commercial refrigeration and air conditioning use... 1/4 to 5 H.P.

101 WHOLESALE  
SUPPLY DEPOTS  
NOW SELL SERVEL

TURN HEAT WAVES INTO BUYING WAVES! • MAIL COUPON TODAY

Servel, Inc.  
Electric Refrigeration Division  
Department A-52, Evansville 20, Indiana

Send full details about Servel Supermetic and name of nearest Wholesale Supplier:

NAME (personal).....

TITLE.....

COMPANY.....

CITY..... ZONE..... STATE.....





YORK 10V-88A air unit and ductwork in the Erie Brewing Co.'s racking cellar.

## 105-Yr.-Old Brewery Fully Air Conditioned

ERIE, Pa.—Only completely air conditioned brewery in western Pennsylvania is the claim made for the Erie Brewing Co. here, which celebrates its 105th anniversary this year.

Not only have the general offices been air conditioned, but all store rooms, racking rooms, government and packing cellars, fermentation rooms, and case beer storages are cooled.

Twelve York industrial air conditioning units with fans totaling 54½ hp. do the job formerly handled by miles of steel pipe coils. The refrigeration machinery consists of four York 10 by 10-in. enclosed vertical single acting ammonia compressors.

Installed and designed by York engineers under the supervision of the brewery's engineering department headed by Owen Murray, these four compressors are driven by three 100-hp. and one 125-hp. electric motors.

Each is equipped with forced feed lubrication and completely automatic capacity reduction allowing for 12 steps of operation.

Erie president, J. M. Maganau, Sr., claims that air conditioning the production and storage departments has given the brewery new and effective economies of operation. The brewery now turns out 450,000 barrels of beer per year.

Next year when more space is added to the hop storage room, the last of the old style cooling coils will be replaced by air cooled units, it is explained.

## Sears Files Suit for Damages From Leaky Air Conditioner

LINCOLN, Neb. — A \$14,355.83 damage suit has been filed in Federal district court by Sears Roebuck & Co. against the Central Electric & Gas Co. and the Mercantile Investment Co., both with headquarters in Lincoln. The chain department store alleges the damage was sustained from a faulty air conditioning system.

The brief filed by Sears claims that an air conditioning unit installed by Mercantile Investment for the gas company leaked salt water over merchandise and fixtures. Sears and the gas company are co-occupants of the Rudge & Guenzel building which extends an entire block.

## To Cool New Stover Unit In Chattanooga, Tenn.

CHATTANOOGA, Tenn. — Stover Candies of Lincoln, Neb. will open an air conditioned candy store, the 37th unit in its country-wide chain, at 734 Market St. here.



## Cotton Mill Air Conditioning System Invades Every 'Nook and Cranny' of Carding, Spinning Areas

SPARTANBURG, S. C. — A new system of refrigerated air change and humidity control has been installed in the Beaumont Mfg. Co.'s carding and spinning departments and has proved highly successful in initial operations, J. L. Adams, superintendent, reported recently.

"In addition to improved working conditions in the two departments," he continued, "operation of the new system is also expected to be of material assistance in improving the quality of Beaumont's fabrics."

Adams pointed out that features of

the system include a network of metal ducts extending into every "nook and cranny" of both the spinning and carding departments, carrying washed and refrigerated air throughout the No. 1 mill.

Power for the system, with its capacity of 800 tons of refrigeration, is provided by a big 800-hp. electric motor—one of the biggest ever placed in operation in this area.

"Air in every part of the two rooms is completely changed every 12 minutes, by use of the new system, assuring comfortable working condi-

tions in every minute of the working day," Adams stated. "The installation of the Brahnson type system at Beaumont was the second of its kind ever placed in operation in a southern cotton textile mill, although this same type system is in use in a number of rayon and other synthetic plants."

An American Moistening Co. system of air change and humidity controls is in operation in all of the weave rooms.

## Seeks Full City Hall Cooling

NORTH LITTLE ROCK, Ark.—Mayor Lawhon says he has taken steps to complete the air conditioning of the North Little Rock City Hall. He filed with the city clerk a proposed ordinance authorizing and directing the Board of Public Affairs to take bids and purchase equipment for the installation, at a cost not to exceed \$5,889.

## JUST ASK US!

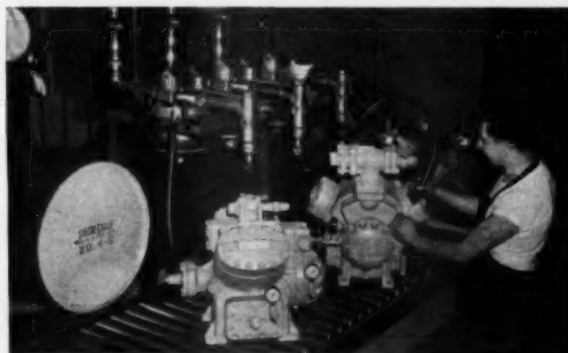
Turn to "What's New" Page for useful information on new products.

# MANUFACTURERS' CHOICE OF SUNISO PROVES IT BEST FOR SERVICEMEN

Their Technical Staffs Have Confirmed the "Job Proved" Quality of Suniso Refrigeration Oil



A 10-YEAR TEST of two compressors run on Suniso Oil was recently completed by an important maker of domestic compressors. Careful examination showed all cylinders, connecting rod bearings, pistons and valves to be good as new after approximately 80,000 hours' operation. And no gum or sludge had formed.



SUNISO ENDS SUBZERO WAXING. Several years ago one of the leading companies making large industrial compressors found that its refrigeration oil was "waxing out" at low temperatures. It then ran tests on a variety of competitive oils. Its exhaustive laboratory analyses proved that when used with Freon, Suniso had a lower wax separation point than any other oil. The company has used Suniso for eight years with complete satisfaction.



Genuine Suniso is available to the service trade through authorized Kelvinator Dealers, and wholesalers supplied by Virginia Smelting Company

## REMCO DRIERS STANDARD-DUTY DRIERS The lowest-cost, most efficient DRIER on the market.



These are the ideal low-cost standard duty driers—for use by original equipment manufacturers, field installation or service replacement. With new MOLDED Remcal drying element or granular silica gel. Copper bodies 1-5/8" diam. with spun ends. In 1/3 thru 1 H. P. Send for descriptive folder.

REMCO INCORPORATED ZELIENOPLE, PA.

## SUNISO REFRIGERATION OILS

SUN OIL COMPANY, PHILADELPHIA 3, PA. • SUN OIL COMPANY, LTD., TORONTO AND MONTREAL



## May Range Shipments Up 50% In St. Louis Area

ST. LOUIS—A 50% gain in electric range shipments to dealers in Union Electric territory during May, as compared with shipments in the preceding May, was reported recently by the utility.

This information was taken from data submitted to the utility by 27 distributors serving its territory.

Their figures also showed that May shipments of refrigerators were 20.9% above last year. Water heaters were up 16.8%, conventional washers 32.4%, dishwashers 37.5%, and vacuum cleaners 78.8%.

On the other hand, freezer shipments were down 22.4% from last year, automatic washers 32.5%, clothes dryers 47.5%, ironers 12%, and electric sinks 31.6%.

For the first five months of the year, only water heaters and clothes dryers among the major appliances showed gains over the same period of 1951. Water heater shipments were up 10.2% and clothes dryers up 18.3%.

In comparison with April, refrigerator shipments rose 39.7%, freezers 42.6%, conventional washers 46%, automatic washers 81%, and electric sinks 22.4%. Decreases were noted for ranges, 3.9%; water heaters, 20.6%; clothes dryers, 35.6%; ironers, 13.1%; vacuum cleaners, 12%; dishwashers, 47.6%; and garbage disposers, 55.6%.

### NEW PRODUCTS?

Turn to "What's New" Page for Useful information on new products

## Manitowoc SUB-ZERO FREEZERS



**tailor-made for easy LIVING... easy SELLING**

Yes, Manitowoc freezers are setting new standards of convenience and space economy for homemakers... in town and on the farm. They need only 2½ by 3 feet of floor space... fit as easily in kitchens and utility rooms as most refrigerators. And today's women love the idea of see-at-a-glance visibility... with no old-fashioned digging or diving.

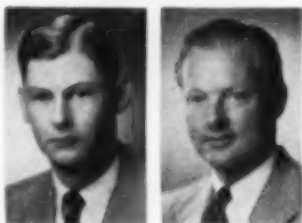
These big advantages make it easy to sell Manitowoc freezers... easy for you to bring new profit to your freezer business. Write now for the full story. And remember the name... Manitowoc, first to bring homemakers so much freezer capacity in so little floor space.

See the Manitowoc "kitchen-style" ad in full color in August issues of these national magazines:

BETTER HOMES, GOOD HOUSEKEEPING, McALL'S, COUNTRY GENTLEMAN

MANITOWOC EQUIPMENT WORKS  
A Division of Manitowoc Engineering Co.  
MANITOWOC, WISCONSIN

## PROMOTED



D. W. Berguson



R. G. McKenzie

## Coolerator Advances 5 as Sales Dept. Is Revamped

DULUTH, Minn.—Reorganization of the Coolerator Co.'s sales department resulted in promotions for five sales executives, according to H. C. Berenford, director of sales and advertising.

Douglas W. Berguson, former head of the firm's market research division, has been chosen to direct sales activity in the New England states as a district manager.

Norman C. Sabee, associated with the Coolerator advertising staff for four years as publicity manager and more recently as sales promotion manager, has been appointed manager of advertising and sales promotion to head up the activities of the advertising department.

Roderick G. McKenzie, head of the sales order division, is now manager of market research.

Harry R. King has been promoted from advertising production manager to manager of the sales order department.

Lloyd W. Wicklund moves up from the service department to manager of advertising production.

## James Mfg. Taken Over By 3 New Companies

INDEPENDENCE, Kans.—James Mfg. Co., producer of the James automatic dishwasher, has been dissolved and its activities taken over by three new corporations, it was announced here.

The concern was formerly operated as a partnership by Lew, Faye, and Duane James. The new companies formed by them are James Research, Inc., James Industries, Inc., and James Mfg. Co., Inc.

Main function of James Research is to develop new ideas and improvements. Lew James is president of this corporation.

James Industries, headed by Duane James, will manufacture the dishwasher and other products. Sales, advertising, and marketing activities will be handled by James Mfg., of which Faye James is president.

Stanley Silber was appointed vice president in charge of coastal sales and Ray Summers vice president in charge of central sales. In addition, sales managers for the western, southeastern, northeastern, south central, and north central regions were selected, and Marion Rutkowski named sales service manager.



**Genuine Joe says:**  
**"Always buy Genuine WAGNER Brushes"**

Replace brushes in Wagner Motors with genuine Wagner brushes because Wagner correct grade brushes give maximum performance, commutator and brush life. Identify them by the name WAGNER on the brushes.

Wagner Electric Corporation  
3471 PATENT AVE., SAINT LOUIS 18, MO., U. S. A.

## Admiral Wins Trade-Mark Suit, More To Come

CHICAGO—Admiral Corp. has announced plans to take action against other trade-mark infringers, following the granting in U. S. District Court, Rochester, N. Y., of a permanent injunction against Penco, Inc., from using the name "Admiral" on household appliances or related goods. Admiral also was awarded \$2,000 for attorney's fees in addition to court costs.

In his decision, Judge Harold P. Burke found Penco, Inc., a subsidiary of Price Vacuum Stores, Inc., of Philadelphia, guilty of infringing the trade-mark "Admiral" and also of unfair competition in the distribution and sale of vacuum cleaners and sewing machines under the "Admiral" name.

## Saenger Appointed to New G-E Appliance Design Unit

LOUISVILLE, Ky.—The appointment of William F. Saenger as supervisor of the newly established advanced appearance design unit of General Electric's major appliance division has been announced by Arthur N. BeeVar, manager of product planning.

In his new position, Saenger will work with product planners and engineers on the design of products not expected to appear on the market for five or 10 years.

Prior to his employment by General Electric, Saenger did work for Raymond Loewy, Russel Wright, and Donald Deskey.

## HOUSEHOLD REFRIGERATION

### 'Pick the Winner' Promotion

## Westinghouse TV, Radio Programs To Feature Political Debates To Get Out the Voters

PITTSBURGH—Debates by top political speakers on leading issues of the presidential campaign will spearhead the second phase of the three million dollar political coverage promotion by Westinghouse Electric Corp.

The promotion, called "Pick the Winner," is tied to 13 weeks of radio and television debates as well as election night returns over the Columbia Broadcasting System networks, reports J. M. McKibbin, vice president in charge of consumer products.

McKibbin said the commercials on both radio and television programs will be aimed at getting out the vote.

Radio debates will start Sunday, Aug. 10, and will continue each Sunday afternoon through Nov. 2. The time will be 4:30 to 5 p.m. EDT. Television debates will be on Thursday nights, 9 to 9:30 p.m., EDT, starting Aug. 14. The final television debate program will be given on Monday, Nov. 3.

Chairman of the television debates will be Walter Cronkite, who acted as CBS anchor man at the conventions, and Dwight Cooke will be chairman of the radio debates. The

television debates will feature a different question and a different set of speakers from those on radio.

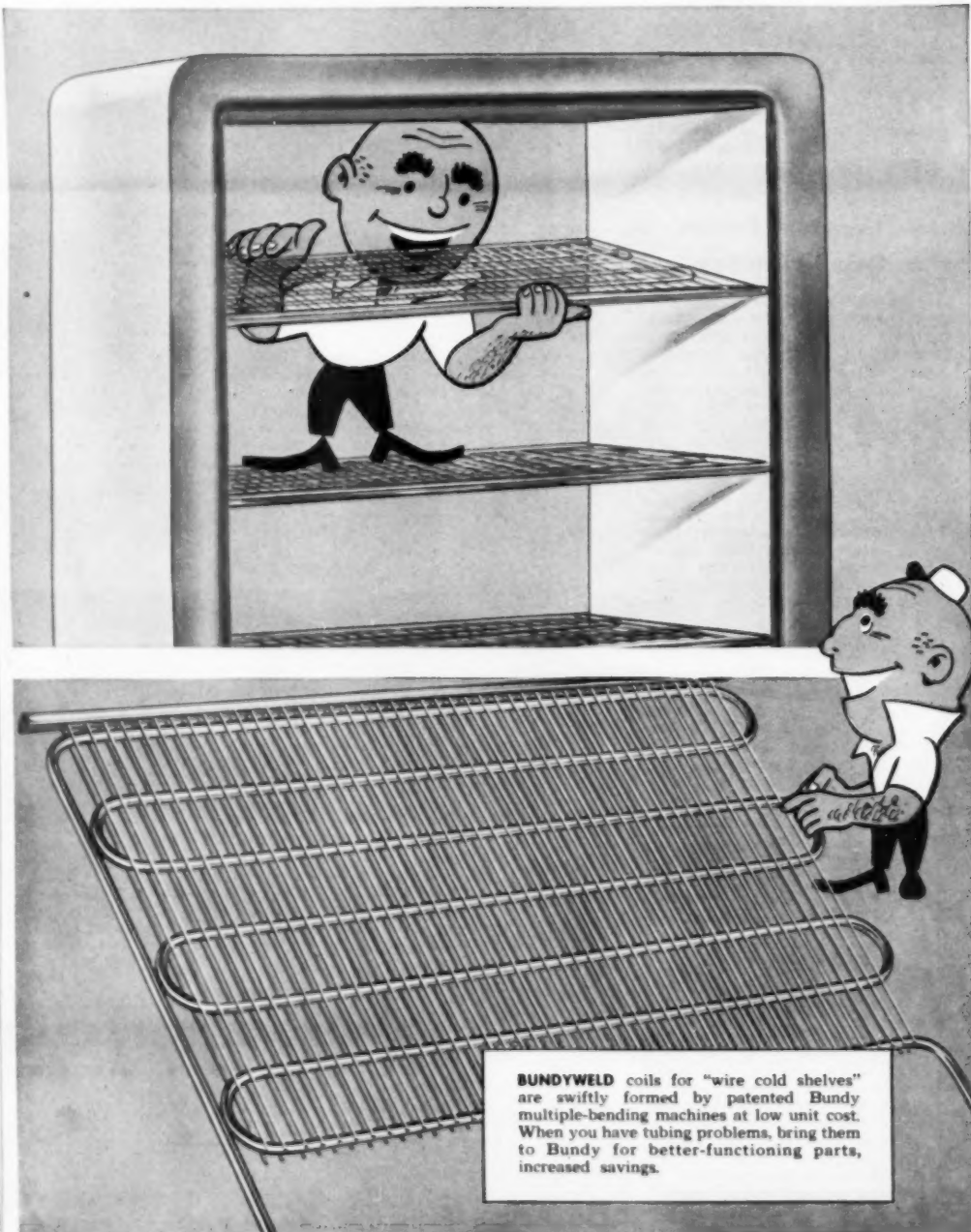
Betty Furness will give product demonstrations for each television program. While the program may originate from a number of different cities during the debate series, demonstrations will be in New York.

Dealers will tie-in with colorful 22-in. by 28-in. window banners which tell about the Pick the Winner series of debates and urge people to tune in. A top strip has a provision to write in the day, time, and television station. In non-television areas, this strip may be cut off. The bottom strip has the same provision for radio information.

A one-column by 3-in. drop-in newspaper mat is designed so that information on the week's debate can be inserted in any advertisement.

Other advertising programs supporting the Pick the Winner series include a full schedule of national magazine and local newspaper advertisements as well as product demonstrations by Miss Furness on the Westinghouse Studio One television dramatic program.

# Bundyweld—first choice



BUNDYWELD coils for "wire cold shelves" are swiftly formed by patented Bundy multiple-bending machines at low unit cost. When you have tubing problems, bring them to Bundy for better-functioning parts, increased savings.



## 13-Point Work Plan for Salesmen

Practical Procedures Aim at Assuring Productive Use of Each Man's 8-Hour Day, According to Harry Price of Norfolk, Va.

CHICAGO—A 13-point work plan for "job rating" salesmen was detailed at the mid-year meeting of the National Appliance & Radio-TV Dealers Association by Harry B. Price, Jr. of Price's, Inc., Norfolk, Va.

The work plan, he explained, points out a practical procedure that will carry salesmen through eight hours of work. It is as follows:

### 1. Build user following.

Each salesman is supplied with a "user book" in binder form. The salesman carries this with him at all times. The sales manager is responsible for keeping these user lists up to date.

### SALESMAN'S ATTITUDE ANTICIPATED

And, Price commented, "we anticipate what is going to happen to (the salesman) right after lunch. We all know how hard it is to make that 1:15 to 1:30 call. We say to him, 'When you reach that frame of mind, stop in your tracks, look in your user book and call on the nearest user to you.'"

Price added: "We try to tell them how to do it and we send a supervisor out with them at times."

### 2. Make next-door calls.

After making a particular call, salesmen are urged to make two more calls—"one on this side and one on that side and keep going down the block" if necessary.

Also, salesmen are reminded, "a call is not a knock on the door; a call is an interview." These next-door calls, Price said, are entered on the salesman's sales report "because that is the most important part of their day's work. That is the extra something that makes them a good salesman."

### 3. Make night calls.

Price's insists, the speaker said, that salesmen make calls two nights a week "and we encourage them to work five."

### 4. Make a minimum of 16 interviews a day.

"It takes 16 interviews a day for a man to make a good living," Price declared. He said his company has proved to salesmen, "and they agree with us," that this number is necessary "for a man to produce the volume of business he needs and that we want."

5. Make a minimum of four telephone interviews while on the floor to keep "in the habit."

### 6. Prepare a daily work report plan.

Salesmen are encouraged to make out their reports before they go out in the field.

"That is the successful plan of the insurance salesman—'Plan your time; work your plan,'" Price said. It is elementary, but it is indispensable.

"He can't make 16 calls unless he has some kind of procedure. We will stop a man at 9:10 in the morning

with 'Let me see your work sheet for today.'"

But, Price cautioned, this work report is of no value unless the salesman is made to understand the necessity of it—"he has to be sold on it."

### 7. First interview—9:15 a.m.

### ENDING EARLY MORNING COFFEE HOUR

On this point, Price commented on the business of salesmen "going next door and getting some coffee." He said:

"Our sales meeting is over at 8:30, and we want them out of the store before 9 and into their first interview at 9:15.

"If you put up with the coffee-drinking business, you have lost the best hour in the morning. Contacts are harder to make in the afternoon. Get (the salesman) to make his first interview at 9:15 and he will get 10 calls in that morning, unless he gets tied up. But this is the time when he is on the ball, when he is right, when he is at his best. . . . Let's end this coffee-drinking."

8. Report in at 5 p.m. each day, in person.

"I find," the speaker noted, "that the closer we are to our salesmen, the more effective they are. . . . You can't find things out (about the salesman's frame of mind) unless you have contact with the guy."

9. Pay keener attention to floor traffic.



"That means to be up at the front door; don't make anybody say 'front' to you," it was pointed out. "Don't set your fanny on an appliance."

10. Stop calling on washed-up prospects.

"Old-timers have that definite fault," Price stated. "For instance, you will have a man who has been in the business quite a while and he has gotten to the point where it is difficult to inspire him. He will find, every day, reasons for calling back on prospects three or four times."

### DROP THE PROSPECT AFTER THIRD CALL

"Statistically, if on your first call you are rated 100%, the second call is 50%, and the third is only 10%. From then on, give it to your competitors."

If salesmen don't close a deal by the third call they should forget about it, Price asserted. Continuing to call on washed-out prospects is usually one of the reasons for a salesman's slump, he said.

11. Prospects go to the salesman who follows up on them promptly.

This is what Price's tells its salesmen on this point: "We have no equal distribution. You earn your right in the prospect line. If we give you a prospect and we check back the next morning and find you didn't make the call, you won't get another one for a week."

Price told the NARDA dealers: "This is the way we have to impress on them the necessity for prompt follow-ups. I don't know about your neck of the woods, but I am damned if (prospects) will wait for us. . . . They have been waiting for months and years, but all of a sudden they make up their mind. . . . They don't want you tomorrow; they want you right then."

Putting off calling on prospects, the speaker declared, is one of the greatest sins tolerated.

12. Cooperate on information on credit reports, etc.

Salesmen are urged to do their part in supplying full and accurate information on reports and in submitting correct figures.

13. "When you can't get it any other way and you are determined to make your quota—canvass."

## 'Summer Sweepstakes' Spurs Sales During Hotpoint's 60-Day Nationwide Campaign

CHICAGO — Hotpoint realized a 40% increase in sales of kitchen and laundry appliances over a comparable 1951 period from a nationwide 60-day "Summer Sweepstakes" sales campaign that ran from May 1 to June 30. John F. McDaniel, vice president of marketing said in announcing winners of the contest.

The "Summer Sweepstakes" contest centered around a racetrack theme in which General Electric Supply Co., Graybar Electric Co., and independent distributor houses participated.

National and district "prizes" worth up to \$1,000 were offered distributor salesmen, distributor sales managers, distributor branch managers, and sales promotion managers. Grand national prize for the top distributor salesman in the country was a Buick and a \$1,000 vacation.

Winners were selected on a basis of sales performance over contest quotas assigned by the factory. Appliances on which sales gains could be scored included ranges, water heaters, dishwashers, automatic washers, refrigerators, freezers, garbage disposal units, rotary ironers, and electric clothes dryers.

In reviewing results of the sales

incentive program, McDaniel said over 60% of all Hotpoint distributor salesmen attained 100% or more of quotas assigned. Southeastern and southwestern districts led the nationwide competition with average per cent over quotas running from 106 to 130.

National grand prize of a Buick Riviera car and \$1,000 vacation was won by G. H. Efrd, General Electric Supply Co., Greensboro, N. C. McDaniel said. Efrd's final score was 661% over quota, the highest figure for any distributor salesman in the nation.

National prizes of \$1,000 each will go to: General Electric Supply Co. salesman, J. F. Newell, Asheville, N. C., 567%; R. Gibson, sales promotion manager, Charlotte, N. C., 161.9%; J. A. Walker, sales manager, Charlotte, N. C., 161.9%; Graybar Electric Co. salesman, F. Nabors, Jackson, Miss., 466.5%; L. L. Henry, sales promotion manager, Columbia, S. C., 165.6%; G. L. Kirby, sales manager, Columbia, S. C., 165.6%; and Harry W. Cameron Inc., Chattanooga, Tenn. salesman, L. W. McCoy, 263%. P. H. Kuhn, sales promotion manager, 142.3%; A. B. Moore, sales manager, 142.3%.

# for new cold shelves for upright freezers

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BUNDY will fabricate serpentine coils for you, speed them to you as specified, on time—bright and clean, smooth inside and out, ready for finishing operations. For fabrication in your plant, Bundy will ship straight lengths or economical, easily handled coils. In both cases, you can count on Bundy skills to help get better parts at lower cost.

## Bundyweld Tubing

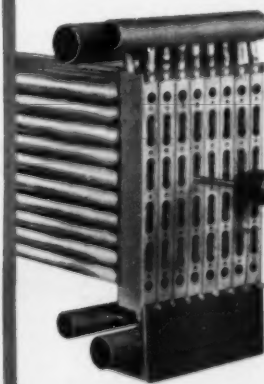
DOUBLE-WALLED FROM A SINGLE STRIP

### More Efficient—CLEANABLE

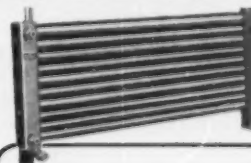
## CONDENSERS



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COUNTER-FLOW DESIGN



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25-TON  
CAPACITIES



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## Feeding the Armed Forces

QM Food & Container Institute Depends Heavily on Refrigeration  
In Conducting Research To Improve Lot of Fighting Men

By C. Dale Mericle

CHICAGO—In designing foods and containers adapted to the conditions of military handling, storage, and use, extensive use is made of refrigeration and air conditioning\* by the Quartermaster Food & Container Institute for the Armed Forces at the Chicago Quartermaster Depot here.

And as might be expected, the institute is intensely interested in pre-cooked frozen foods, what with the Air Force specifying them for in-flight feeding on some long-range bombers and the Navy studying their possibilities for submarines.

### Research Is Thorough

Both foods themselves and the containers which hold them come up for thorough-going research at the institute, where the research activities are under the over-all guidance of Dr. Donald K. Tressler, who for nearly two years has served as scientific director. Military commandant of the institute is Lt. Col. Charles A. Shaunesey.

Why all this research? Albert V. Grundy, chief of the Container Laboratories at the institute, explains

"Mention of manufacturer's products in this article does not constitute endorsement by the Department of Defense. Since procurement procedures are designed to permit all manufacturers an equal opportunity in selling their services or products to the Department of Defense, the criteria of purchase are cost and the fulfillment of specification requirements."

This is the first instalment of a two-part article which describes the important role played by refrigeration at the Quartermaster Food & Container Institute in Chicago. The first article outlines the problems and tests involving containers for foods and other products employed by the Armed Forces. Next week's instalment will review the institute's studies of precooked frozen foods.

the container problem this way:

"To meet the rigors of military use, containers must protect contents from point of initial shipment to point of destination. They must be easy to handle, store, and issue. Above all, they must be feasible to manufacture, for if the materials are scarce or not available, if manufacturers require new techniques and equipment, if production costs are exorbitant, volume production as required by the Armed Forces is out of the question."

The problem of "developing packages and packs to carry military supplies or for that matter to evaluate the military potentialities of commercial containers requires adequate

tests and adequate test equipment," Grundy states.

"To protect contents, containers must withstand:

"1. Prolonged vibration due to motion of transport media, rough roads, choppy seas, etc.;

"2. Handling such as sliding along platforms, over rough or wet ground, dropping from trucks, lighters, etc.; sudden impacts sustained in boxcars, holds of ships, and air transports, and as deck cargo; air drop; transfer of supplies by materials-handling equipment, including sling cargo nets and chutes; penetration with sharp objects, etc.;

"3. Special handling methods as transport by pack animals, by sleds, by native carriers using two-man pole slings;

"4. Deteriorative action of salt spray, mist, rain, snow, high wind, etc., during land and sea transport.

"5. Extremes of high and low temperatures and humidities including solar radiation temperatures running as high as 180° F.;

"6. High altitudes condition (including internal pressures on closure and structural features of containers) particularly critical with items such as cylinders of gas, insecticides (Aerosol bombs), fumigants (methyl bromide in cans and cylinders), carbonyls of chemicals, etc.;

## Commercial Refrigeration



TESTING CONTAINERS at QM Food & Container Institute under low temperature for tearing (left) and dropping (right).

"7. Bacteria, mold, insect, and rodent infestation;

"8. Combat area hazards including corrosive gas and radioactivity.

### Field Requirements

"To meet field requirements," Grundy continues, "containers must:

"1. Be suited to transport by air, sea, or land, and adapted to standard pallets and to dimension of storage space of trucks, air transports, open and closed boxcars, ships, and other carriers;

"2. Be constructed so as to conserve shipping weight and space to maximum extent possible;

"3. Be capable of ready and easy opening under all conditions including combat;

"4. Be capable of ready issue of components under adverse operational conditions such as paratroop lands, beachhead lands, darkness, subzero temperatures, and icy terrain, etc.;

"5. Be capable, as required, of reuse after opening for transshipment of contents to other areas or return

of contents to point of origin for repair, etc.;

"6. Be in conformity with established camouflage practices;

"7. Be capable, when specified tactical situation requires, of air drop, with or without parachute."

Of the test equipment itself in the container laboratories, the low temperature room would perhaps prove of most interest to a refrigeration man. This is a large chamber measuring approximately 12 by 25 by 9 ft. high which is used to study problems of packaging that show up at extremely low temperature.

### Cold Room Goes to -100°

It's capable of maintaining temperatures ranging from -20° F. to -100° F. for extended periods of time with an air movement that averages about 15 m.p.h. Installed by Westerman & Campbell, this room is cooled by a three-stage "Freon-22" system of compressors. Also used for testing containers is a smaller low temperature room that goes to -40° F.

(Continued on next page)



## Want refrigeration you can count on?

...Then you'll want to work with the Carrier line of Condensing Units. Because they were designed with you, the man who sells and services the equipment, in mind.

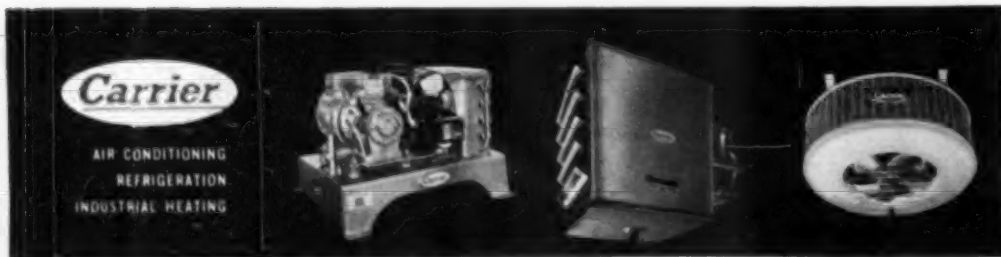
That means you can count on Carrier having the right unit for the job, because our condensing units are available in a complete range of sizes, up to 7½ horsepower, and there are specific models for high, low or medium temperature applications.

You can count on Carrier's adaptability to any type of evaporator because Carrier Condensing Units operate with thermostatic or automatic expansion valves, with high or low side floats or with capillary tubes.

And you can count on Carrier's modern design, because Carrier has long been the world leader in the development and manufacture of refrigeration equipment.

Selling equipment you can count on means more business, more satisfied customers, less servicing time.

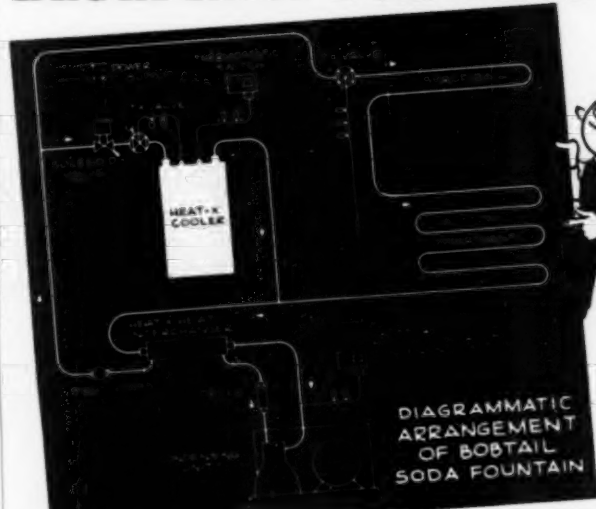
And when it comes to selling, you'll find that customers respond to features like Carrier's five-year protection plan . . . like the accessibility of the hermetic compressors which means they can be serviced on the job, to save lost merchandise and business. Carrier Corporation, Syracuse, New York.



Carrier Condensing Unit, for storage cabinets, walk-in coolers and other applications. Air or water cooled models.

Carrier Cold Diffusers, for retail meat coolers, locker plants, fur storage, etc. Highly efficient cooling coils of copper tubing.

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Write Dept. SE for Specification Sheet

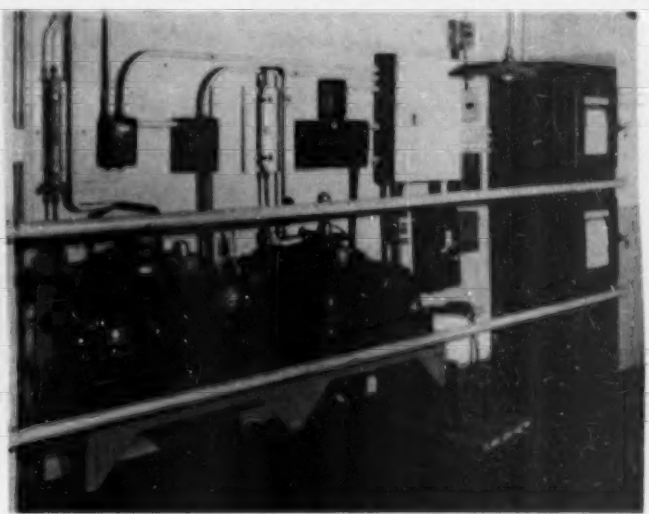
THE HEAT-X-CHANGER CO., INC.  
BREWSTER, NEW YORK





ONE HOUR'S exposure to the alternate rain and sunshine of the "weatherometer" simulates a day on a tropical beachhead.

COLD CHAMBER (right) employed by Quartermaster Food & Container Institute goes down to -100° F. and has a -40° F. anteroom.



ELABORATE CONTROLS and considerable refrigeration equipment are needed to produce controlled variations in temperature and humidity inside Cycling room at institute's laboratories.

## Tests Simulate Arctic Conditions--

(Continued from preceding page)

The larger low temperature room is used in a variety of ways. It can serve, for example, merely as a low temperature storage room to observe the effects of exposure to Arctic conditions on containers. But it finds more frequent use, however, in permitting other tests to be conducted on containers under low temperature.

Among these are the impact test and the drop test, which are employed to determine the resistance of containers to the jars and jolts encountered in transit or in dropping.

"In commercial supply operations no great attention needs to be paid to impact other than at prevailing regional temperatures," points out Grundy. "In Armed Forces supply lines extreme low and high temperatures exercise an effect that increases the probability of damage manifold. As an example of a low temperature, the following information on the destructive action of extreme cold on nailed wood boxes will be of interest. 'It is well recognized that the nail-

holding power of nails used in the construction of wooden crates and boxes is considerably reduced if the containers are frozen and is further accentuated if the lumber is water soaked or of very high moisture content prior to freezing. Impact received during loading and unloading operations in subzero weather causes nails to loosen and spring out of the face of the lumber, resulting in weakening and final breakdown of the structural support of wooden containers," Grundy explained.

### Test Flexible Materials

Low temperature tests are perhaps even more important for flexible container materials intended for use as protective inner barriers within rigid containers or as unsupported flexible containers, he indicated.

"The sensitivity of flexible materials on both single sheet and laminated form to extreme cold, specifically their tendency to become brittle or delaminate under stress, makes tests at extreme low temperatures imperative," he said.

Incidentally, when men are conducting tests inside the cold room, they are heavily clothed, of course, and they communicate by telephone with outside observers. Their comments as the tests progress are also recorded for later study.

Another test room that would arouse the interest of the average refrigeration man is the Cycling room. As the name implies, this room is set up to provide controlled fluctuations in temperature and humidity such as are encountered in various parts of the world.

Ordinarily, the Cycling room operates from 12 hours at 70° F. and 90% relative humidity, and then for the next 12 hours it is held at 110° F. and 25% r.h. These conditions more or less simulate those found in Iran, for example.

Equipment used to maintain these conditions is completely automatic in operation and includes two Fridg-

aire condensing units and rather elaborate controls.

In addition to this room the Container Laboratories also make use of a Tropical room where constant conditions of 100° F. and 90% r.h. are maintained. Some products are held here a year or longer to observe how they react to weather conditions similar to those encountered in the Canal Zone and other tropical areas.

The Material Testing Laboratory at the institute is held closely to 70° F. and 50% r.h. by a Curtis package conditioner equipped with steam coils and suitable controls. These conditions meet the standards established by ASTM.

Many precision instruments are housed in this laboratory to permit

tests on such important factors as the tearing, bending, and bursting properties of materials used for containers. There is also equipment for determining tensile strength, resistance to compression, and moisture content.

Accelerated weathering of materials can be observed in the institute's "weatherometer," a device which incorporates a powerful revolving arc light to simulate sunshine. An exposure of one hour to this light is assumed to approximate 24 hours of hot tropical sunshine.

This device also provides a tropical "rain" once every hour.

Additional container testing equipment includes a large incline-impact machine which simulates the shocks received, for example, when railroad cars are coupled, a compression testing machine that applies up to 10,000 p.s.i. on containers (they're sometimes piled many rows deep in the field) and revolving drums of 7 ft. and 3 ft. sizes. The smaller one is sometimes used in a cold room for tumbling tests.

(To Be Continued)

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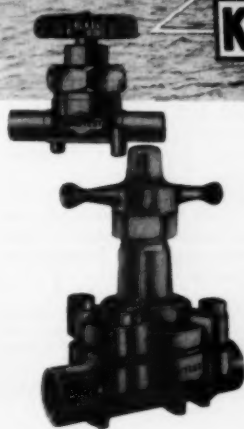
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## They'll Do It Every Time . . . . By Jimmy Hatlo



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"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.

## Profitable New Field

DURING World War II, cogently-engineered industrial applications of refrigeration and air conditioning principles solved many tough manufacturing problems. "When it's midnight in New Orleans, it's morning in Detroit," fraction-conscious purchasing agents warned their suppliers during World War II. What they meant was that the machining of metals to a 10,000th of an inch tolerance is subject to heat-and-humidity conditions. Otherwise, those component parts couldn't fit into the whole assembly.

Manufacturing employment of air conditioning for quality control—with perhaps even a greater emphasis on economy and efficiency of labor cooperation, thanks to air conditioning—should pile up a score of usefulness far above and beyond the machine tool, metals-chewing, electroplating, and welding applications of air conditioning which made World War II air conditioned factories models of efficiency.

A promising prospect list for the refrigeration contractor, and for the air conditioning engineer and dealer, is the some 220,000 manufacturing plants in the United States which ought to be air conditioned—in the interest of greater production and production cost savings—but which aren't.

What are the most logical points of attack on this market for air conditioning and commercial refrigeration salesmen? That's a question which is easy to answer.

The 1,054 automobile and parts manufacturing plants in this nation, the 253 steel fabricators and rolling mills, the 406 ship building and ship repair yards, the 2,125 machine shop small metal-chewing-up factories, the 543 chemical plants, the 1,161 gray iron and semi-steel casting plants, the 7,391 sawmills and wood-veneer mills, the 1,138 structural and ornamental steel works, the 434 hardware factories, the 1,262 sheet metal plants, the 4,504 non-alcoholic soft-drink beverage bottlers—along with America's 3,506 creameries, 2,734 ice cream plants, 1,007 frozen food preparation plants, 3,975 ice plants and 7,324 hygienic dairies, and the 1,478 meat packers in this country—they are all prime prospects for more refrigeration and air conditioning equipment than they now possess.

Many good industrial prospects for big equipment sales are in your manufacturing province and your territory—Mr. Manufacturer and Mr. Best Dealer. Furthermore:

Refrigeration markets in the medical and surgical field are growing rapidly.

"Wonder Drugs" and blood banks, for example, require refrigerated storage in hospitals and doctors' headquarters.

What is the market for cold-storage "doctor" refrigerators? Put down approximately 6,900 hospitals, 174,000 independent doctors, 73,000 dentists, 93,000 drugstores—and then parlay (multiply) these figures by four. The "known" prospects for "medical" refrigerators represent only 26% of the total market, it is believed, because new uses are still appearing. Conservatively speaking, this market looks like a "natural."

Manufacturers and dealers should combine and amalgamate their efforts to supply and merchandise this special refrigeration equipment to doctors, dentists, and surgeons—as well as to precision machinists and metal-fabricators of every stamp and variety.

By "working through" this considerable prospect list, and by giving these professional purchasers what they need and demand, refrigeration specialists can profit, and they can benefit Mankind at one and the same time.

Again we ask dealers and contractors who subscribe to AIR CONDITIONING & REFRIGERATION NEWS: "What are you waiting for?" A government subsidy? Get "One Foot in the Door." And then: wield your "Marshal's Baton."

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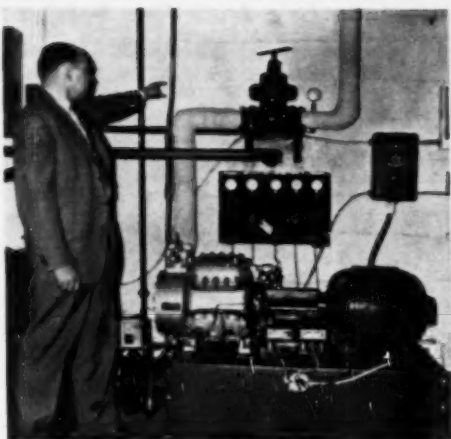


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LIQUID REFRIGERANT in the vertical liquid line, pointed out in the picture at left, can expand and form what is known to the industry as "flash gas," reducing expansion valve capacity.

## Sizing Expansion Valves

Knowledge of Pressure Differential at Valve Is Vital to Making Correct Choice

LA CROSSE, Wis.—Correct sizing of thermostatic expansion valves will help insure full output of the refrigeration system, reduce expansion valve wear, and maintain maximum evaporator efficiency during fluctuations in the cooling load, points out M. L. Hoglund, manager of Trane Co.'s Refrigeration Sales Dept.

A thermostatic expansion valve, Hoglund reminds servicemen and contractors, is a throttling device designed to control automatically the flow of liquid refrigerant to the evaporator in response to certain pressure and temperature conditions that occur in accordance with the refrigeration load.

"In order to select the correct size expansion valve for a refrigeration system it is necessary to know the pressure differential at the valve. This differential is simply the figure obtained by subtracting the low-side (LS) pressure from the high-side (HS) pressure at the expansion valve. Once this pressure has been calculated, the valve can be selected from manufacturer's tables.

"For example, a 40-ton system has a 91 p.s.i. differential at the expansion valve (or where an expansion valve would be located if installed). Going to the manufacturer's tables, a valve with a 40-ton capacity at 91 p.s.i. would be selected. This valve will pass that weight of liquid refrigerant which, when changing to gas in the evaporator, will absorb the equivalent heat of 40 tons of refrigeration."

The rule-of-thumb technique of assigning 60 p.s.i. as the differential for all thermal expansion valves, according to Hoglund, can lead to operating trouble. If the 60 p.s.i. figure, or any other pressure differential, is too low, the valve will be over-sized and tend to "hunt," causing fluctuations in the amount of refrigerant fed to the evaporator, he explained.

"If the orifice is too large because the valve was selected for too low a differential, it will pass too much liquid refrigerant each time the valve opens. If the orifice is too small because the differential was figured too high, the expansion valve will not pass sufficient refrigerant, 'starving'

the evaporator and reducing the system's capacity.

"In figuring the pressure differential at the expansion valve, pressure drops in lines and equipment must be accounted for. Line losses through evaporator, condenser, valves, fittings, strainers, etc., must all be calculated to come up with the right answer for accurate expansion valve selection. To simplify figuring pressure drops up to the expansion valve, the high and low side of a typical refrigeration system will be considered separately."

Here is Hoglund's suggestion for a simplified method of calculating pressure differential:

### LOW SIDE

1. Add pressure drops through:
  - a. Refrigerant distributor (from manufacturer's literature).
  - b. Evaporator (from manufacturer's literature).
  - c. Suction line, from compressor to evaporator, accounting for all fittings, valves, etc. (from standard tables giving "Freon" gas friction losses through pipe and fittings).
2. Add total from Item 1 to the suction pressure at the compressor. This gives the total suction pressure on the low side of the expansion valve.

### HIGH SIDE

1. Add pressure drops through:
  - a. Liquid line, due to friction of liquid refrigerant (from standard tables on liquid "Freon" flow through pipe), plus loss due to solenoids, valves, strainers, and fittings.
  - b. Liquid line, due to elevation (where evaporator is installed above the condenser, based on .55 p.s.i. pressure loss per foot of elevation).
2. Subtract Item 1 total from condenser pressure (condenser pressure known, as a factor of its selection).

For example: Condenser pressure is 130 p.s.i. Liquid line pressure drop due to friction and valves and fittings has been figured to be 3.2 p.s.i. There is 15 ft. of vertical liquid line between the condenser and expansion valve.

$.55 \times 15 = 8.25$  p.s.i. loss due to elevation.

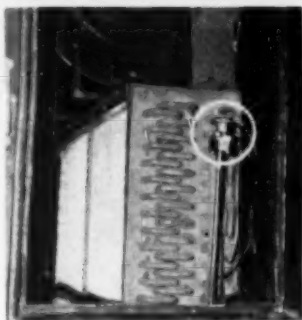
$8.25 + 3.2 = 11.45$  total pressure drop on the high side.

$130 - 11.45$  (condenser pressure) = 118.55 p.s.i. high-side pressure at the expansion valve. Subtracting high-side pressure from low-side pressure at the expansion valve gives the required pressure differential, on which to base valve selection.

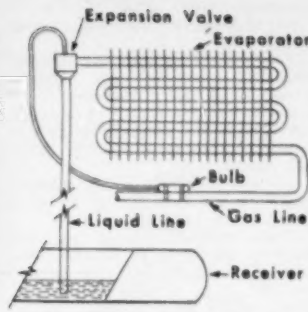
### FLASH GAS IN LIQUID LINE CUTS VALVE CAPACITY

"Expansion valve capacity may be reduced in cases where an evaporator is installed above a condenser. Expansion of liquid refrigerant in the vertical liquid line from the con-

## Service & Supplies



EXPANSION VALVE SHOWN encircled above controls the amount of liquid refrigerant admitted to evaporator.



TYPICAL INSTALLATION in which the evaporator is located above the condenser. In such an installation flash gas can be eliminated by subcooling refrigerant.

denser to the evaporator will cause "flash gas" to form. Because it displaces some of the liquid refrigerant, "flash gas" in liquid line cuts down expansion valve capacity," Hoglund says.

"Flash gas in vertical liquid lines can be eliminated by sub-cooling the refrigerant. This can be done by passing the liquid 'Freon' through a coil in the sump tank of an evaporative condenser, or by the use of a

suction-to-liquid heat exchanger, or both. The suction-to-liquid heat exchanger allows the liquid refrigerant to pass through tubes around which flows the colder gas from the evaporator. The liquid is sub-cooled by losing heat to the suction gas.

"In addition to sub-cooling, liquid lines may also have to be insulated under certain circumstances to avoid flash gas. Where liquid lines pass through high temperature areas,

causing the liquid refrigerant to pick up enough heat to cause it to boil at the temperature corresponding to its pressure, insulation should be applied. For example, liquid lines should be insulated where they pass through a pipe chase containing steam or high temperature hot water lines.

"In general, insulate the liquid line wherever it passes through an area in which the temperature is 100° or over—that is, higher than the temperature of the liquid refrigerant. Other than under these special, rather rare conditions, liquid line insulation is generally not necessary," Hoglund declared.

"Remember, in sizing a thermal expansion valve, account for all pipe friction losses up to the valve, on both sides of the system. Take into consideration the drop through the evaporator and fittings, and the losses due to elevation of the liquid line. An accurately sized thermal expansion valve, with respect both to pressure differential and tonnage, helps insure efficient evaporator operation and prompt adjustment of the evaporator output according to load demands."

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Oakland, California

May 15, 1952

Dear Mr. Warren:

Several weeks ago we decided to find out if your "spot special" frozen food merchandising cabinets would give us the sales increases you claimed.

We wanted proof!

So, we installed a Kelvinator KM-6 in our San Lorenzo store -- one of 26 in the Louis Stores chain. We changed the contents of this cabinet every Monday and ran weekly "specials". The results are amazing. Here is an actual record of the frozen specials -- and the percent of increase in sales when the following items were displayed and promoted in the KM-6:

Ravioles	Sales increased 97%
Waffles	Sales increased 89%
Chicken Pies	Sales increased 176%
Chicken ala King	Sales increased 143%
Frozen Pies	Sales increased 82%
Strawberries	Sales increased 247%
Whole Chicken	Sales increased 199%

Needless to say, we are more than pleased with the results obtained -- which have convinced us that "spot special" display of frozen foods -- and Kelvinator cabinets -- add up to sound merchandising, rapid turnover and increased profits.

Very truly yours,

T. E. Louis

TEL/

WAREHOUSE: 1918 PARK STREET • ALAMEDA, CALIFORNIA • TELEPHONE LAKEMONT 3-6450



Mr. T. E. Louis—Owner  
Louis Stores, Inc., Berkeley 5, Calif.

### LOUIS STORES



Louis Store, San Lorenzo, Calif.

—one of 26 in the Louis Stores Chain

Henry F. Gonzalez, Mgr. of  
San Lorenzo Louis Store—with Sales-making  
Kelvinator KM-6 Frozen Food Merchandiser



You can increase your profits too, by selling Kelvinator Frozen Food Merchandisers. Every retail food store is a prospect! See them today -- (8 models—from 6 to 20 cubic feet!) at your nearest Distributor or Zone office... or write Kelvinator, Division of Nash-Kelvinator Corporation, Detroit 33, Michigan.

**Redmond**

**MICROMOTORS**

Prompt shipment!

"ONE OR ONE THOUSAND"

74 different models in stock

FACTORY DISTRIBUTORS

**CYCLO-FREEZE CORP.**

MARVIN L. "FERGIE" FERGUSTAD

2120 S. Lyndale, Dept. A, Mpls. 5, Minn.

**Be Smart ... order from edition 157**

**HARRY ALTER'S  
DEPENDABOOK**  
Fall and Winter, 1952-53

Over 9,000 Items!  
**REFRIGERATION Parts and Supplies**

TELEVISION • RADIO • HEATING  
ELECTRIC MOTOR PARTS • AIR CONDITIONING

Write for your copy—TODAY!

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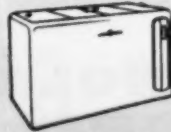
**The HARRY ALTER CO. Inc.**

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Profit Today... Build for Tomorrow with

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The Name that Sells... The Name that Satisfies!



REFRIGERANT COOLERS



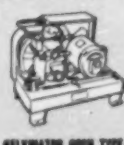
FROZEN FOOD MERCHANDISERS



WATER COOLERS



ICE CREAM CABINETS

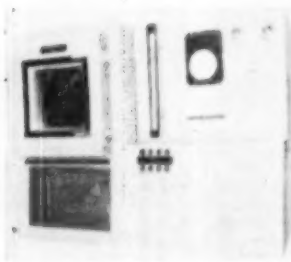


OPEN TYPE MERCHANDISING UNITS (8 1/2" H. P. to 1 1/2" H. P.)

## What's New

When requesting further information on new products, please use "Information Center" form.

### Tenney Announces Line of Altitude Test Chambers



KEY NO. B-830

NEWARK, N. J.—Tenney Engineering, Inc., manufacturer of environmental test chambers and "low-side" refrigeration equipment, announces a standard line of altitude chambers designed to cover the majority of all altitude test requirements.

The move enables purchasers to select altitude chambers from existing specifications and avoid the extra cost of custom built units.

Known as the "TenneyZphere," the chambers provide vacuum conditions simulating altitudes from sea level to approximately 80,000 ft. In addition to simulated altitude conditions, the TenneyZphere also creates high and low temperatures and variable

relative humidity conditions. Temperatures range from 200° F. to -100° F. Relative humidities are from 20% to 95%.

Temperature recording controls, pressure controller and altitude gauge or mercury manometer are standard equipment. All controls are mounted on the chamber for ease of operation and adjustment to different conditions.

Chambers come in 10 different sizes ranging from 18 by 22 by 18 in. to 48 by 60 by 96 in.

Time required to heat from ambient to 200° F. is 60 minutes. Time required to "pull-down" from ambient to -70° F. is 2 hours; to -85° F., 2-2½ hours, and to -100° F., 2-3 hours. Average rate of climb to 50,000 ft. is 3,000 ft. per minute.

Standard TenneyZphere features include: pre-set control for any desired altitude; terminal lead-in panel with eight terminal posts and four copper constantan thermocouples; low temperatures of -70° F., -85° F., or -100° F.; 200 watt dissipation at lowest specified temperature; standard instrumentation for wet and dry-bulb temperatures; sealed multi-pane viewing window; glareless lighting of the test space; and full access to the chamber interior.

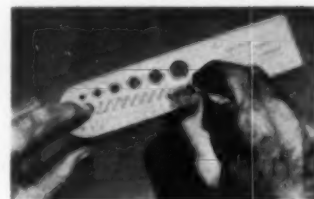
The above line will handle the majority of all altitude testing require-

ments. However, special features may be obtained when required.

These include high voltage leads, side viewing windows, hand-operated tuning shafts, high wattage dissipation, utility ports up to 6-in. in diameter, stainless steel power shafts, special instrumentation, rapid cooling and heating rates, low temperatures to -150° F., and altitudes to 120,000 ft.

The TenneyZphere Chamber may also be built to fulfill any special size requirements.

### Circ-L-Scale Combines Several Measuring Aids



KEY NO. B-831

CHICAGO—A combination compass, scale, square, protractor, and lettering guide has been developed by the UniStruct Products Co. here. Called the "Circ-L-Scale," the device is small, handy, and durable, the company says. It is made of vinylite because of the low coefficient of expansion.

On the reverse side are temperature conversion table, decimal equivalents, tap and drill scale, and a metric rule.

The Circ-L-Scale is offered free on request to the company.

### Westinghouse Introduces Twin Brush Floor Polisher



KEY NO. B-832

MANSFIELD, Ohio—A twin brush floor polisher designed to keep floors bright without hard work was introduced recently by the Westinghouse Electric Appliance Div.

Called the model FP-2, the Westinghouse floor polisher carries a suggested retail price of \$69.95. It features two 6-in. counter revolving brushes and a patented handle swivel for operation at any angle. Two brushes for cleaning and scrubbing, two brushes for polishing, and two felt buffing pads are standard equipment with the polisher. The brushes are made of natural fibre bristles permanently set in waterproof backs.

The new floor polisher is fully equipped to clean, wax, and polish hardwood floors and hard surface coverings. Stabilized by the rotating brushes, it glides over the floor with little effort on the part of the user.

Other features of the new polisher include a plastic handle grip molded to fit the hand and an enclosed trigger switch. The top cord hook is reversible and provides for quick release of the 22-ft. cord. The cord is heavily insulated.

Made of zinc alloy, the motor housing is finished in coral with a gray vinyl plastic bumper to prevent marring of furniture. The Westinghouse motor is ¼ hp., 115 volts, universal type, a.c.-d.c. The worm gear

drive develops a brush speed of 600 r.p.m. Net weight of the polisher is 16½ lbs.

An optional reconditioning kit, model PK-2, provides equipment for sanding floors, tables, and desks and for steel-wool cleaning. It contains disc holders, an adjustment wrench, steel-wool pads, and an assortment of sandpaper discs. The kit carries a suggested list price of \$10.95.

### Flexible Gas Connector Returns to Market



KEY NO. B-833

PORT JERVIS, N. Y.—Relaxation of government restrictions on "Flex" now makes this flexible gas connector available again for installation of ranges and other gas appliances, according to Techniflex Corp. here.

A completely free flexing connector made of seamless Admiralty brass tube, "Flex" eliminates threading, elbow joints, measurements, and slow, "behind the stove" labor.

It is fitted at both ends with ¾-in. I.P.T. female unions that need only be tightened on the gas pipe and range while the appliance is away from the wall. The appliance is then easily put into position.

Leakproof and corrosion resistant, "Flex" is AGA listed and approved by the New York City Board of Standards and Appeals. For areas with an abnormally high sulphur content in the gas, "Flex" can be obtained with tin exterior and interior.

Lengths of "Flex" available from stock at 2 ft., 3 ft., 4 ft., and 5 ft.

For connecting gas refrigerators, space heaters, and hot plates, "Flex" is also available with ¼ in. and ½ in. inside dimensions.



Gentlemen:

We want PRODUCTION RUN

lowside business!

20 years experience  
in designing, stamping,  
forming, welding,  
brazing, cleaning,  
and finishing  
refrigeration  
lowside

With an extended manufacturing plant, modern production lines built and equipped to improve quality and cut production costs, years of experience in designing and engineering refrigeration lowside, Kold-Hold is well organized to handle special production run contracts for a limited number of fixture manufacturers.

If you build home refrigerators, refrigerator display cases, coolers, cabinets, or any type of refrigerated equipment which needs lowside, you should investigate Kold-Hold's ability to produce these for you.

Years of experience in the refrigeration field allow us to place at your disposal our testing laboratory, engineering facts, know-how and designs that have already been proven successful.

A large assortment of standard designs and sizes make it possible to easily adapt a unit to your present design of equipment and bring you Kold-Hold's efficiency and dependability at low cost.

You can depend upon Kold-Hold to meet your heat exchange problem. Let's explore the possibilities together. You are under no obligation.

A fully illustrated brochure on Kold-Hold's production line facilities will give you specific and complete details. A copy is yours for the asking. Write today!

**KOLD-HOLD**  
MANUFACTURING COMPANY

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## Information Center

advertised and we'll see that you receive this information promptly.

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products

### What's New or Current Literature Available

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Key No. ....	Key No. ....

### Products Advertised

(list name, page, and issue date)

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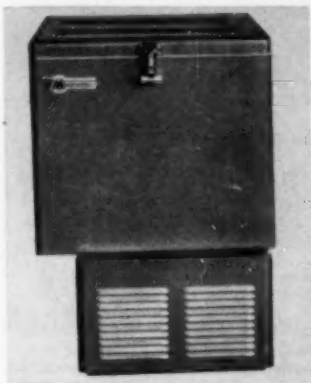
Reader Service Dept.

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DETROIT 26, MICHIGAN



## What's New (Cont.)



### Ice Cream Cabinets for Retail Delivery Offered

KEY NO. B-834

UTICA, N. Y.—Mohawk Cabinet Co. here announces development of two new cabinets for the retail delivery of ice cream on milk and bakery routes.

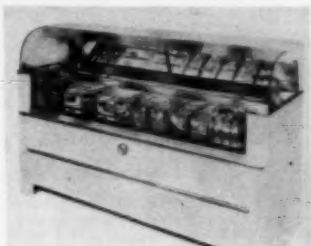
Both cabinets are of the hold-over type and plug into an electrical outlet while the delivery truck is in the garage over night. The cabinets may be disconnected the next morning and will hold approximately zero temperatures throughout the day, according to the company.

One model—D-4—is manufactured to fit Divo trucks only. This model sets in the front of the Divo truck to the right of the driver.

Model S-4 can be used on any type of truck and bolted to the truck floor.

Both cabinets have a capacity of approximately 25 gals. of ice cream and are equipped with a lock-type latch on the lid.

The top of the model D-4 is equipped with stainless steel mouldings so that the finish of the cabinet will not be damaged if milk cases and other heavy objects are placed on the top.



### Frozen Food Cabinet Has Snap-On Defrosters

KEY NO. B-835

UTICA, Mich.—A new 15-cu. ft. frozen food display cabinet has been introduced by the Bailey & Perkins Co. here.

Labeled the "GF-1579," the cabinet features eye-level price panel, four-pane Thermopane glass front, full-length mirror, and snap-on defrosters. The defrosters can be slipped off the divider plates, rinsed, and snapped back on.

Five refrigerated divider plates maintain sub-zero temperatures throughout the entire storage area. For ice cream storage, the case is also available with six divider plates, the company points out.

The case is of welded steel construction with aluminum liner. Refrigerant carried in copper tubing has positive contact with liner surfaces. The self-contained condensing unit slides out in front for convenient servicing.

The case is also equipped with fluorescent lighting and side air shields. A complete vapor seal minimizes temperature transfer, the company says.

Outside dimensions are 79 by 50 by 28 in. The food compartment, which holds approximately 576 standard packages, measures 71 by 17 by 21 in.

The case is also made in a 10-cu. ft. version for either frozen foods or ice cream.

### Dehumidifier Features 'Time-Delay Action'

KEY NO. B-836

ALEXANDRIA, Va.—Manufacture of an improved absorption type packaged dehumidifier, with a built-in "time-delay action" has been announced by Dryomatic Corp. here.

Catalogued as model 25CT, the portable, heavy duty unit, has a separate reactivation air-intake vent. This feature makes the unit particularly adaptable for maintaining constant low humidity levels at constant controlled temperatures.

The model 25CT requires only a small exhaust vent to the outside. There are no buckets to empty or chemicals to replace. Measuring only 21 in. in height and 14 in. in diameter, the unit can be used either inside or outside the area to be protected, thus saving valuable floor space for other uses when desired. Its shipping weight is only 45 lbs.

The unit affords precise humidity control down to levels as low as 15% in enclosed areas and up to 10,000 cu. ft. Its unusually wide range of operating temperatures—from -40° F. to 100° F.—makes the model



25CT ideal for maintaining low humidities even at difficult ambient temperatures, such as in cold storage plants and unheated warehouses, where year-round "cold-dry" protection is necessary.

This Dryomatic "Dry Conditioner" functions by drawing humid air through a permanent dehydrating agent—a combination of activated alumina and silica gel—then discharging the dry, dust-free air back into the room.

The unit works in cycles: dries for 2½ hours; and vaporizes the absorbed moisture for 30 minutes, switching from the drying to the reactivation phase automatically, without external control, as long as the unit is in operation.

Since the desiccant is thus reactivated periodically by means of a built-in heating element, it has an indefinite life and needs no replacement.

The new "time-delay action" feature of the improved model assures that the desiccant is thoroughly dehydrated and cooled before the unit switches back again to the drying phase.

Thus, the time-delay mechanism prevents undue rise of temperature in the room during the beginnings of the drying cycles, and increases the unit's drying efficiency by approximately 20%.

This feature is now being incorporated into the company's smaller

household, and larger industrial models.

The model 25CT draws a maximum of 0.96 kilowatts from a 110-volt, 60-cycle, single phase line. The self-contained fan motor is a ½ hp., 24 watt rotor type, capable of moving 32 c.f.m. of air through the machine.

Other units in the Dryomatic line

of dry conditioners include the model 100, controlling humidities in areas up to 25,000 cu. ft., and the model 20 with effective control area of 7,500 cu. ft. of enclosed space.

Dryomatic Corp. also engineers dehumidification machines to meet special requirements, according to the announcement.



"Mr. Dealer  
Here is Important  
News for  
*you*...

There are over  
**TEN  
MILLION**  
*Tecumseh*  
**COMPRESSORS  
IN USE TODAY!**

*and here is what it  
means to you . . .*

These 10 million Tecumseh compressors in the field, attest the acceptance Tecumseh has built in the industry. Proven dependability under all field conditions has led more and more manufacturers to incorporate the Tecumseh hermetic in their cabinets. Today two out of three manufacturers of nationally advertised household refrigerators use the Tecumseh hermetic and better than 2,000,000 units are being produced yearly. You can use these facts to prove the experience and reputation behind the compressor in the refrigerator you are selling to the customer.

The Tecumseh hermetic is exactly engineered to the particular cabinet in which it is installed. This is usually the result of many months of careful engineering tests to make sure it will give long, dependable service. Our engineers, concentrating on compressor design only, work closely with more top engineers and production men in every branch of the industry than any other manufacturer. Long experience in compressor design and production plus this daily contact with the best brains in the industry make the Tecumseh hermetic the last word in compressor design.

Further, rigid inspection is maintained at every stage of production to be certain that every Tecumseh compressor will meet the same exacting standards of quality. The shells are permanently welded together to eliminate most outside causes of trouble and generally incorporated into household refrigerators as a complete system. The soundness of this practice is proven by the small percentage of field failures. Field returns under warranty average less than 1% per year for completely sealed systems and practically none fail for mechanical reasons. This is a remarkable record considering the fact that they are sold to more than 200 different manufacturers.

Elimination of service calls under warranty saves you money and helps satisfy customers with their purchase. Take full advantage of the selling points of the Tecumseh hermetic and point out these facts when talking to your customers.



**TECUMSEH PRODUCTS**

TECUMSEH, MICH *Company*

EXPORT DEPT.: 3111 WOODWARD AVE., DETROIT, MICH.

## WHAT DOES One Thousand MEAN TO YOU?



It means you can get now from your Cutler-Hammer wholesaler a "specific-fit" replacement control for any one of 1000 past and present refrigerator models and put it in without "modifying," without fussing. Quick action. Faster profits. Dependable performance. Lasting good will.

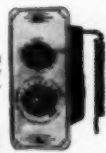
There's no "modifying," no fussing, no delay when you answer service calls with C-H "specific-fit" replacement control units. You take out the old, put in the new . . . and you are through! It's the easy, sure way to do the job right because Cutler-Hammer has manufactured such "specific-fit" units for more than 1,000 models of refrigerators built since 1925. And you'll also quickly see how the widely-known Cutler-Hammer name (advertised in The Saturday Evening Post, Time, Newsweek, American Home, Better Homes & Gardens, House & Garden, etc.) builds customer confidence and good will. Do not forget, this C-H refrigeration control line includes the popular general purpose two-button replacement unit (Type 9502) which incorporates dependable motor overload protection.

**NEW CATALOG.** New 1952 C-H Refrigeration Catalog has 16 pages new material, 64 pages altogether. More "specific-fit" replacement units. 90 different box manufacturers listed and the C-H control to fit. Get a free copy and the control items you need through your authorized C-H refrigeration wholesaler. CUTLER-HAMMER, Inc., 1362 St. Paul Avenue, Milwaukee 1, Wisconsin.

Featured by Cutler-Hammer refrigeration wholesalers and recommended by alert service dealers from coast to coast.

Just a few of the "specific-fit" controls in the unequalled Cutler-Hammer line.

9502N95 C-H "specific-fit" for Tagliabue models.



9502N372 C-H "specific-fit" for Kelvinator 1932 models.



9502N383 C-H "specific-fit" for Copeland 1937-1938 models.



9525N106 C-H "specific-fit" for Coldspot 1949-1950 models.



9521N29 C-H "specific-fit" for Frigidaire 1934-37-38 models.



**For more  
Ice Maker  
SALES**

**... FILTRINE  
"Taste-Master"  
Demineralizer  
in the water line**

Cuts Service  
No Tastes  
Clear Ice  
Fits All Makes  
Small Cost

Crystal ice . . . without sludge-forming rust, sediment, mineral residue . . . chlorine taste . . . "milkiness." Ends major source of service calls. Write for new literature.

**Filtrine**  
Water Filters and Filters for 40 Years  
**FILTRINE MANUFACTURING CO.**  
BROOKLYN 5, N. Y.

## Lead-Clad Copper Coils Are Answer

# Direct Expansion System Lets Grumman Aircraft Anodize Aluminum for Planes on Production Basis

By Durward T. Armstrong, Metallurgist, Grumman Aircraft Engineering Co., and Jack Montgomery, South Shore Refrigeration, Inc., Bay Shore, Long Island, N. Y.

Confronted with the problem of producing a surface hard enough to meet demanding combat conditions for fighter planes, the Grumman Aircraft Engineering Co. adopted the Aluminum Co. of America's hard coat process.

One particularly difficult feature of this process is the absolute necessity for keeping the electrolyte cooled down to 50° F. and sometimes at 25° F. for long periods of time. It has been demonstrated that water as a cooling medium in ordinary lead coils is unsatisfactory. Due to the high current density requirements of the process, both water and brine would be most impractical.

Calculations of heat transfer, water temperatures, and B.T.U. input showed that the square footage of lead coil cooling area required would leave little tank space for anodizing.

As a matter of fact, these calculations showed that lead coils would weigh about 2,700 lbs. They would have to contain 480 lin. ft. of lead pipe, and would have to be fabricated in five sections, with separate inlets and outlets hooked into lead pipe manifolds.

Cupralum lead-clad copper had previously come to our attention through the Uylite Corp. of Detroit;

and although we realized that it represented a new concept, we decided to explore its possibilities.

Cupralum lead-clad copper tubing is soft, annealed, deoxidized copper tubing to which a uniform, dense-structured, non-porous lead cladding has been chemically bonded. The diameters of copper tubing range from 1/4 in. to 2 in., and the thickness of the lead cladding is from 1/8 in. to 1/4 in., with 3/16 in. being generally considered as standard.

The lead cladding is produced from chemical lead or acid lead, in accordance with ASTM designation B-29-49.

### COMBINES CORROSION RESISTANCE, STRENGTH, HEAT TRANSFER QUALITIES

Cupralum, in this form, combines lead's well known ability to resist the corrosive action of sulphuric acid with the strength and heat transfer properties of copper tubing. Copper absorbs and transfers heat with great efficiency, and since the lead cladding is chemically bonded to the copper, heat transfer is kept at a high value. The physical strength to withstand high steam pressures, up to 200 p.s.i., is provided by the copper tubing. Hence, it is both possible

and practical to keep the lead cladding to a minimum, dependent of course upon the corrosion conditions in a given installation.

The known physical properties of copper are the factors which determine the physical limits of the clad metal. Because the lead is chemically bonded to the copper, it expands or contracts with the copper during temperature changes. Thus it corrects the previous tendency of lead by itself to fail quickly through fatigue, which resulted from the fact that normally this metal expands more than it contracts.

While Cupralum lead-clad copper tubing is ductile, it is also rigid and self-supporting. Fabricated coils, depending on diameter, shape, and weight, are customarily supported by lead-clad steel legs, frames, or hangers, so that the finished heating coil is not distorted, nor does it collapse, because of temperature changes, shock, and vibration.

Cupralum coils, because of their strength, are portable and may be transferred for various heating or refrigeration jobs when this is desirable. These coils may be cleaned periodically, and their life extended still further by simple repairs, made



## New Cooling Method for Sulphuric Acid Bath Seen As Key Factor In Process for Anodizing Aluminum

BETHPAGE, N. Y.—A new process for anodizing aluminum, to form what is believed to be one of the hardest industrial surfaces, has been recently developed by the Grumman Aircraft Engineering Corp. here.

Key factor in this process was a new cooling method for a sulphuric acid bath, developed by John A. Montgomery of the South Shore Refrigeration Service, Inc., Bay Shore, N. Y., refrigeration contractor and refrigeration engineer for the Grumman firm.

To anodize aluminum, the metal is immersed in a bath of sulphuric acid and subjected to repeated powerful charges of electricity. The combination of acid and electricity produces chemical changes resulting in the sapphire-hard surface desired. Anodized aluminum is not a new development, but until now, only small parts have successfully been treated.

The greatest difficulty has been to develop a practical method to hold the sulphuric acid bath at even, low temperatures in spite of the enormous heat generated by the electricity.

To solve this problem, the most logical approach seemed to be by direct expansion of "Freon" with Antimonial lead.

But due to the weight and fatigue strength, it was decided to use two banks of new Cupralum lead-clad copper coils—one on either side of the large anodizing tank.

The lead cladding protected the copper coil from the corrosive effects of the acid, while the copper coil gave good results with "Freon."

By properly sizing the expansion valves and using a Brunner model 20000 condensing unit, the installation performed in a highly satisfactory manner as the first production Alumilite hard coat refrigeration system.

Since its development, Grumman has anodized aluminum with coatings that required carefully controlled temperatures ranging from 50° F. down to 25° F. At no time was it necessary to push the Brunner condensing unit, which handled the load with ease.

Grumman Engineering Corp. will use this new anodizing process in production of jet fighters.



## Who said only cucumbers are cool?



One of the most effective selling points for Worthington air conditioning and refrigeration is this: America's leaders... in many businesses... select Worthington.

For example: more and more of the country's foremost frozen food producers depend on Worthington refrigeration for the fast freezing which insures that fresh-picked flavor.

And more and more food outlets of every size protect produce

... keep customers contented regardless of the weather... with Worthington air conditioning.

No distributor has a more complete line at his fingertips than the Worthington distributor. He can handle any job with exactly the right equipment.

Advertising? You'll find the Worthington story in TIME, NEWSWEEK, and many other magazines read by architects, builders, contractors, food producers, frozen food producers and by key men throughout such industries as chemical and petroleum.

Worthington Corporation, Air Conditioning and Refrigeration Division, Harrison, New Jersey.

# WORTHINGTON



AIR CONDITIONING AND REFRIGERATION  
A Balanced Line... A Balanced Franchise

through ordinary lead burning techniques.

Cupralum lead-clad copper coils resist all concentrations of sulphuric acid up to 85%, at temperatures up to 428° F. For some purposes even at temperatures as high as 482° F., lead also possesses long life as compared with other metals and alloys.

Not only may Cupralum be used with steam pressures up to 200 p.s.i., but the heat transfer qualities of the clad metal are highly efficient. This makes it possible to keep the square footage of the heating area at a minimum; also, the heating cycles may be very rapid, where this is desirable.

Having researched the properties of lead-clad coils, a series of technical meetings was arranged with Knapp Mills, Inc., producers of the new clad metal.

We found that for some time Knapp Mills had visioned the possibility of using these coils under direct expansion of "Freon," realizing that the employment of a low temperature coolant, in place of water, would provide the best possible solution for severe cooling problems.

### ADVANTAGES OF CUPRALUM

They believed Cupralum well suited for such use, because

- (1) Copper is standard for use with "Freon";
- (2) Copper easily withstands the pressures developed during the expansion of "Freon";
- (3) The thermal conductivity of Cupralum is excellent;
- (4) The coils are rigid, self-supporting, and not subject to distortion or collapse.
- (5) Even if the lead cladding is injured accidentally, Cupralum cannot be harmed irreparably by an accidental blow.

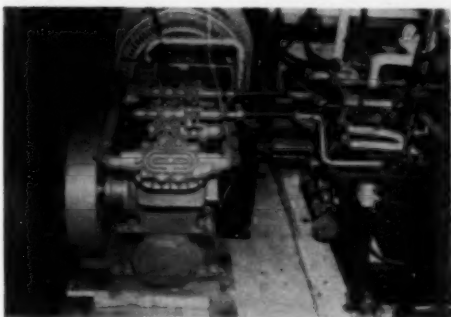
As a result of our conferences, we decided to design two identical Cupralum coils, each containing 90 lin. ft. of 1 1/2 in. o.d. copper tubing with a 3/16-in. lead cladding. The design provided for suspending the coils by means of three lead-clad steel hangers on either side of the tank containing the electrolyte. The overall measurement of each coil was 2 ft. high by 7 1/2 ft. long. Because of the relatively small footage, they were of the simple return bend type.

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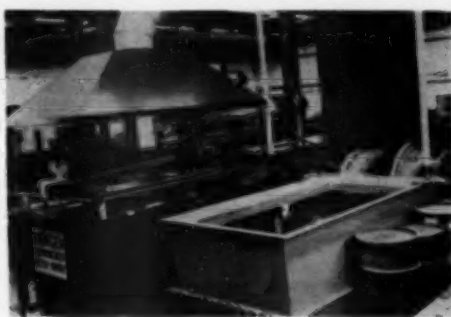


SEE PAGE 21





BRUNNER model 20000 "Freon" condensing unit provides refrigeration for the first production Alumilite hard coat refrigeration system at Grumman Aircraft.



REFRIGERATED sulphuric bath tanks used in anodizing aluminum processing at Grumman Aircraft.

## Anodizing Aluminum for Planes--

(Concluded from preceding page) and projected into the tank 3½ in. As a result, practically the entire area of the tank was available for process.

The total of 180 ft. of Cupralum coil allowed for a safety factor, in that it exceeded the mathematical calculation of square feet of cooling area required. Beyond that, it was decided to provide an oversized compressor, with a constant capacity of 15 tons of refrigeration, together with oversized lines and valves, rather than the 10-ton unit indicated. This compressor was installed on a chassis which would make it possible to step up refrigeration output to as much as 20 tons if necessary.

### "F-12" SELECTED AS COOLANT

"Freon-12" was selected as the coolant, but if still lower temperatures proved necessary, provision was made to use "Freon-22," and thus make available an improvement in cooling temperatures of as much as 30% additional.

That these procedures resulted in an extremely flexible cooling installation is obvious. The anodizing installation was fully completed by Oct. 5, 1951, and after several trial runs production commenced on Nov. 8, 1951.

In the ensuing period of approximately five months we have anodized aluminum with coatings that required carefully controlled temperature levels. During this time the Cupralum coils have maintained constant temperatures ranging from 50° F. down to 25° F., and have done so with ease. Furthermore it has not been found necessary to use

the oversized capacity of the compressor or lines, or to resort to a lower temperature coolant than "Freon-12."

### MEETS TROUBLESOME PHENOMENA

This installation has now been in service sufficiently long to demonstrate that it can successfully meet one of the troublesome phenomena in refrigeration, namely the fact that cooling results, during the early stages of operation, are sometimes startlingly better than those attained later. This is believed to be due to insulating films which form, during these initial operations, on both the inside and outside coil areas.

Anodized aluminum coatings have a variety of important properties, such as resistance to corrosion and to abrasion, the ability to absorb substances, and extreme hardness.

The value and importance of anodized aluminum to American industry cannot be over-estimated. Up to the present time, Grumman has used the anodizing process only on smaller aluminum parts for airplanes, especially those which must withstand the heaviest load, or which receive the hardest wear. Now, however, the consistent high efficiency of Cupralum coils, when used with the Aluminum Co. of America's hard coat process, offers great potentialities for the mass production of anodized aluminum.

The ultimate use of this finish in the production of airplanes, automobiles, and countless other large products may have far reaching results. Some forms of anodized aluminum are harder than carburized or hard

chrome plated steel. In fact, certain of these anodized aluminum surfaces approach the hardness of sapphire.

Bearing in mind that the installation described above was the first of its kind, and that the problem of cooling sulphuric acid is encountered by many engineers throughout industry, it was decided to evaluate Cupralum coils from the standpoint of application to normal cooling problems found in the chemical industry.

For instance, when sulphuric acid is produced by the Chamber method, it leaves the Glover tower at temperatures frequently as high as 315° F. It is necessary to cool this acid to approximately 100° F. Lead pipe coils, employing water as the coolant, have been standard for this purpose, but the limitations brought about by the temperature of water are such that stage cooling must be used.

In this procedure, the acid is conveyed from cooling tank to cooling

tank, each being literally filled with lead cooling coils. While the method described is successful, the capital invested in equipment is considerable and maintenance of the lead coils is a continuous problem.

Often temperature is a part of processes involving sulphuric acid, which must then be dissipated through the use of a suitable cooling medium. In other cases temperature results from mixing various concentrations of sulphuric acid, as in the case of battery plants.

These are typical problems in which an improvement in cooling might result in distinct benefits. With this thought in mind, a specific test of the cooling capacity of the Cupralum coil was arranged.

Twenty percent sulphuric acid selected as a commonly encountered Baume. The tank had a capacity of 5,500 lbs. of this concentration. Accordingly the required gallonage of water was run into the tank, the refrigeration system was started, and the temperature of the water checked. This was found to be 50° F. Then the requisite amount of 60 Baume sulphuric acid was emptied into the water to bring about a 20% mixture. The temperature of the solution at this point read 180° F.

The tank had been equipped with two air inlets, so that the cooling process might have the benefit of agitation. Temperature readings were taken by means of four thermometers, which were suspended equidistantly into the solution, and kept under constant observation. The temperature of the solution had not reached more than 180° F. before it commenced to decrease very discernibly. In less than eight minutes, it was below 100° F., and in 32 minutes the temperature reached 50° F.

### EXPECTED HEAT REMOVAL RATE EXCEEDED

Reviewing the operation of the refrigeration system, it was established that the coil, which had been designed originally to remove 115,000 B.t.u. per hour, had actually removed heat at the phenomenal rate of 1,200,000 B.t.u. per hour.

Whether this phenomenon may be attributed to the employment of over-sized valves and lines, or to some other sound technical explanation, has not yet been established.

Since that time, the installation has been used for the normal anodizing of aluminum, and no difference in its functioning has been observed.

When it is considered that the Cupralum coil has efficiently handled the heavy B.t.u. input found during anodizing, and kept the electrolyte at a constant temperature of 25° F. with ease, and when it is realized that during the test check on the cooling of sulphuric acid, B.t.u. were removed at the rate of 1,200,000 per hour, it should be evident to all engineers who are faced with severe cooling problems that they may well consider the use of Cupralum under the direct expansion of "Freon."

It may be of interest to mention that the Cupralum installation was designed to prevent harm to the compressor, in the event that a leak occurred in the coil at any time.

This was done by raising the level of the inlet and outlet well above the solution level, so that the coil would act as a trap, in case of a leak.

The installation was equipped with a customary low pressure control on the suction line of the compressor, so that if a leak should occur, the low pressure control will cut out the operation of the compressor.

in this refrigeration range and higher

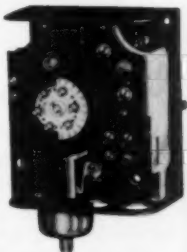
35° F  
24° F

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## Current LITERATURE available

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

### Brown Bulletin Describes Three Thermocouple Wires

—KEY NO. N-830—

PHILADELPHIA—A new bulletin (No. 5600), introducing three new thermocouple wires suitable for use in temperatures varying from -20 to 2,000° F., has been issued recently by the Brown Instruments Div., Minneapolis-Honeywell Regulator Co. here.

Consisting of two pages, the bulletin lists engineering data and representative applications for each.

### Extended Surface Coil Developments Reviewed

—KEY NO. N-831—

LA CROSSE, Wis.—Developments in extended surface cooling coils, for use with direct expansion refrigerants and chilled water in air conditioning or process applications, are summarized in a revised bulletin, "Cooling Coils," D8-365, published by The Tyne Co. here.

Added to the bulletin is a completely new coil, Type B, for use where

the quantity of water is restricted and a redesigned coil, Type OB, that can be completely drained where danger of freezing exists. Both coils can be used for either right or left-hand connections, simplifying installation, the company said.

Special consideration is given to coils designed for such industrial applications as gas cooling, butane vaporizing, transformer oil cooling, generator cooling, and condensing of gaseous refrigerants.

More than 50 pages of the 72-page bulletin D8-365 are devoted to performance data tables, selection instruction, specifications, and other details.

### Combination Lighting, Heating Unit Described

—KEY NO. N-832—

BERGENFIELD, N. J.—A descriptive folder on the Electricas Thermolite has been issued recently by the Appleman Art Glass Works here. The Thermolite is a new combination heating and lighting ceiling unit, particularly designed for use in home bathrooms.

### Guide Aids Selection Of V-Belt Drives

—KEY NO. N-833—

FORT WORTH, Texas—V-Drive selections can be made quickly with the practical aid offered by Fort Worth Engineering Guide #50-A, issued by the Fort Worth Steel & Machine Co.

Simple formulas for standard quarter-turn and V-flat drives are augmented by tables of drives in all belt sections which have been compiled for quick selection of drives of required ratio and speed.

This bulletin also contains engineering information on other types of V-belt drives, according to the company.

### Preparing Your Plant For Atomic Attack

—KEY NO. N-834—

BELLEVILLE, N. J.—"How To Prepare Your Plant For Atomic Attack," a 32-page illustrated booklet on industrial plant security in the atomic age, is being offered to all plants, large and small, by Walter Kidde & Co., Inc.

The booklet is believed to be the first on this vital subject intended specifically for industrial management and safety personnel, prepared and distributed solely at the expense of a private company.

In simple language the booklet presents the latest factual information about the atomic bomb, its destructive potential, and its limitations; a guide to plant management in organizing personnel to cope with possible plant disasters; and recommendations

for strengthening plant construction and sustaining production in the face of bomb attack.

Subjects discussed and illustrated in the new booklet include "Why You Must Be Prepared"; "The Bomb" (blast effect, radiation, incendiary effect); "Plant Defense Organization" (air raid warning, medical and first aid, fire fighting, police, salvage, and repair); "Shelter and Building Construction"; and "Planning For Sustained Production."

### Data on Chart Recording Of Alternating Voltage

—KEY NO. N-835—

PHILADELPHIA—A data sheet describing the use, operation, and advantages of continuous wide chart recording of alternating voltage or current through the use of an Electronik strip chart recording potentiometer together with a Weston thermal converter, has been issued by the Brown Instruments Div. of Minneapolis-Honeywell Regulator Co. here.

The data sheet, called the Honeywell Instrumentation Data Sheet No. 9.1-13, includes illustrations on all units and dimensional drawings, it is stated.

### Connor Bulletin Describes High Pressure Diffusers

—KEY NO. N-836—

DANBURY, Conn.—Bulletin K-29, recently issued by W. B. Connor Engineering Corp., illustrates and describes the company's several types of high pressure diffusers.

These units are made to handle static pressures ranging from 1 to 4 in. water gauge, duct velocities up to 3,000 f.p.m., and 25° temperature differentials.

High pressure systems can be balanced even where there are extremely wide variations in air delivery or changes in requirements from design of 25 to 400%, the bulletin says. Air volumes are precisely regulated from fully open to completely closed positions by the unit's calibrated damper, it is pointed out.

"Smaller and simpler ductwork with long runs of diffusers supplied by uniform size conduits without the customary reduction for each take-off makes possible substantial space and installation savings," the company claims.

### Bulletin Describes Allspeed Motor Drives

—KEY NO. N-837—

HARRISON, N. J.—Allspeed Motor Drives from 1/2 to 7 1/2 hp. are described in a 16-page bulletin published by Worthington Corp.

Described and pictured are both upright and horizontal drives of either closed or skeleton types. Sixteen pictures graphically portray the ease of belt change. Discussed are such problems as service, electric motors, torque, bases, adverse operating conditions, and shaft variations.

Two pages of selection tables, one page describing "how" to select the proper drive, and one page on operation and maintenance are included. Dimensions and line drawings on the various drives are also featured.

Copies of this bulletin should be requested on company letterhead.

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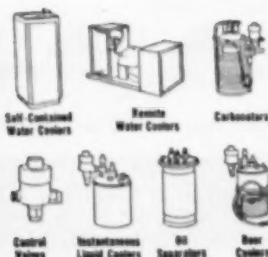
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## Refrigeration Problems

and their solution

by Paul Reed

For Service and Installation Engineers



Paul Reed

### Two-Temperature Refrigerators (8)

#### DUAL EFFECT COMPRESSOR

Instead of using a two-cylinder compressor with cylinders of unequal displacement, a similar effect can be obtained with a one-cylinder compressor by what is known as "dual effect."

To explain this "dual effect," let us digress for a moment:

When a piston in the compressor is at top "dead-center," it has completed its compression stroke, the discharge valve is closed, and there is no gas in the cylinder except for a very small amount in the tiny space between the top of the piston and the valve plate.

As the piston starts downward, it tends to create a vacuum, and the suction gas rushes in through the suction valve. This continues throughout the remainder of the downward suction stroke.

In a cylinder with dual-effect, there is no suction valve in the valve plate. Instead there is a small suction port or slot in the cylinder wall near the top of the cylinder. The low temperature evaporator with its low suction pressure is connected to this port. As soon as the top of the piston, on its downward or suction stroke, uncovers the port in the cylinder, suction gas from the freezer evaporator rushes into the cylinder.

Down farther in the cylinder wall there is another cylinder port, and to this the suction line from the evaporator in the refrigerator compartment is connected. As soon as the top of the piston uncovers this lower port, the higher pressure suction gas from the refrigerator compartment evaporator rushes in and fills the cylinder from then on to the bottom of the suction stroke. This higher pressure gas is prevented from going

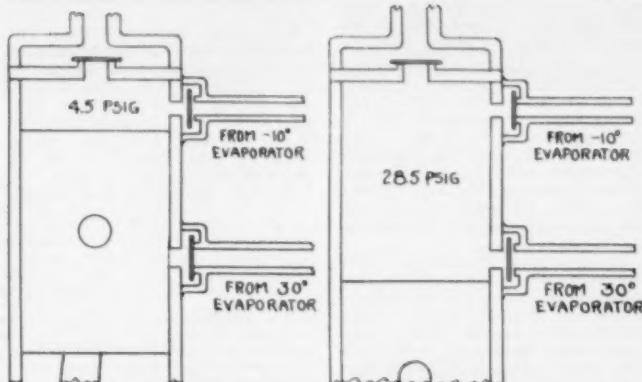


Fig. 12—Cylinder with "dual effect," showing a piston on suction stroke. On left, suction pressure 4.5 p.s.i.g. from freezer evaporator. On right later in the stroke, suction pressure from evaporator in refrigerator compartment.

back into the branch suction line from the freezer evaporator, by a check valve in this line.

At the bottom of the suction stroke, the piston starts back upward on its compression stroke. The lower port is open but its branch suction line is also equipped with a check valve. So the gas is trapped in the cylinder, is compressed, and is forced out through the discharge valve into the condenser.

#### TWO-TEMPERATURE EFFECT

In this way, the cylinder is filled with gas at the higher suction pressure, but it "takes a bite" of the low pressure gas at the beginning of the suction stroke. Thus, the compressor operates as a "two-temperature" compressor, but it also operates at high capacity and high efficiency corresponding to the higher suction pressure from the warmer evaporator in the refrigerator compartment.

Temperature control could be by thermostat responding to the temperature of either the freezer or re-

frigerator compartment evaporators. In either case, the control of temperature for the compartment having the thermostat would be good, but the temperature control of the other compartment would suffer.

The accuracy of temperature control would depend upon the variation in the heat load distribution between the compartments, which is typical of two-temperature refrigerators operated from one condensing unit, with one compressor.

#### SUMMARY

In this series we have tried to review the methods of maintaining two rather widely separated temperatures in the same refrigerator; one at about 0° and the other at about 40°. We found that:

- (1) The first requisite is to have two separate compartments, each with its own evaporator, whether primary or secondary.
  - (2) Preferably each compartment should have its separate compressor in order to obtain maximum efficiency and economy of operation.
  - (3) To obtain low first cost, a single compressor can be used, by employing a secondary system, tail-off, differential pressure valve, or similar ingenious methods. Although sufficiently effective and efficient for practical purposes, these methods do involve inefficiency of operation and difficulty of accurate temperature control with variation in load.
  - (4) In the two-temperature refrigerator, the freezer evaporator is rarely defrosted, other than by manual removal of frost.
- Defrosting of the refrigerator compartment evaporator is considerably simplified and is usually performed between each running cycle of the compressor.

### Arnold B. Medbery Joins Trane Engineering Dept.

LA CROSSE, Wis.—Arnold B. Medbery has recently joined the products engineering department of The Trane Co. here, manufacturer of air conditioning, heating, and ventilating equipment. It was announced by R. E. Lucey, vice president of the company.

He will handle engineering standardization duties in the design and development of air conditioning and refrigeration products.

Medbery has been associated with the Elliot Co., Jeannette, Pa., as development engineer in the blower division for the past four years.

Prior to 1948, he was with Pratt & Whitney Aircraft Div.

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### Butler, Wolchin Added to Bush, Heat-X Coast Div.

WEST HARTFORD, Conn.—Bush Mfg. Co. here and Heat-X-Changer Co., Brewster, N. Y., have announced the appointment of two additional representatives to the West Coast Div. of the companies.

O. M. Butler will be located in San Francisco. He has been associated with a leading West Coast refrigeration wholesaler.

Ira A. Wolchin has been added to the sales staff of the Los Angeles office as sales engineer. Wolchin, who has been in the refrigeration industry for a number of years, will assist Harry Quinn, manager of the western division.

Bush and Heat-X-Changer also announced the transfer of John Shepherdson from application engineer to sales engineer in the Chicago office.

Working under the direction of the Chicago district manager, John K. Campbell, Shepherdson will cover the southern Illinois and northern Indiana territory. He came to the company from General Electric Co., and has been at West Hartford.

### Wilkes-Barre Bldg. Leased By Allentown Distributor

WILKES-BARRE, Pa.—Charles L. Bell Co., Allentown, Pa., appliance distributor, has leased a building on Pierce St. here and is remodeling it for a new distribution point.

The front portion of the building will be converted into a display room and offices, and the rear section, comprising about 75% of total floor space, will be used for warehousing.

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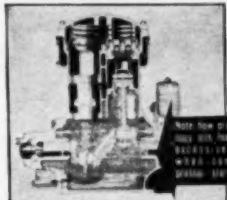
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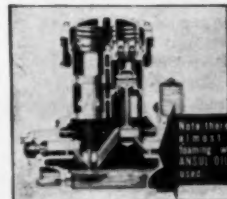
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Note how oil foams in cylinder.



Note how oil does not foam in cylinder.

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NORTH KANSAS CITY 16, MO.

# Gas Heating Controls

By Service Information Division,  
White-Rodgers Electric Co.

## 3—Electrical Circuits Used with Gas Controls

Fig. 4 shows a simple two-wire electric control circuit. Note the path the power must follow through the circuit.

If all the switches are closed power can flow through the complete circuit and energize the coil type control. Any open switch, a broken wire, or a poor splice or terminal connection would interrupt the power flow and the coil type control could not operate.

Fig. 5 shows two separate control circuits taken from one source of power. The power source being a branch circuit of the building's power supply.

The top circuit is a line voltage

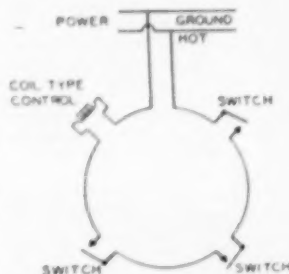


FIG. 4 is a simple two-wire electrical circuit with various controls in series.

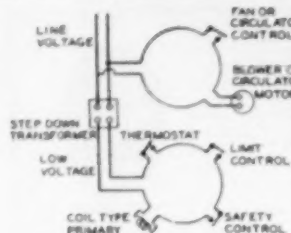


FIG. 5 shows two separate control circuits taken from same source of power—the top one using line voltage, the bottom circuit, low voltage.

trically operated controls that do not receive their electric energy from a power source outside of the control circuit. A small flame from the safety pilot burner playing on a thermocouple generates electric current. The voltage generated is less than one volt and is usually between  $\frac{1}{4}$  and  $\frac{1}{2}$  volt.

Self-generating controls are considered as low voltage controls. Because of the extremely low voltage special care must be taken to make perfect splices and terminal connections. Poor splices or connections will create resistance to power flow and make the system inoperative.

When self-generating controls are used, select your switch type controls carefully. Be sure the contact structures are designed to carry the extremely low voltage.

(To Be Continued)

## Lou Levy Joins Lehigh To Serve New York Area

LANCASTER, Pa.—Lehigh Mfg. Co. here, manufacturer of condensing units, automatic defrost systems, and truck refrigeration



Lou Levy

with the Refrigeration Supply Co., Inc. of Washington, D. C.

He is a native of Washington and a graduate of the University of Maryland. Levy is an International Director of RSSE and an active member of ASRE Baltimore-Washington section.

## Pa. Wholesaler To Open Branch In Williamsport

HARRISBURG, Pa.—In order to provide better service for dealers in the Williamsport, Pa. area, Refrigeration Supply Co. here will open a branch at 732 W. Fourth St. in that city on Aug. 20, it was announced by Russell D. Jones, head of the firm.

Jones said this will be the first branch the company has opened in its more than 16 years in the wholesale business. Open house for the dealer and service organizations of the Williamsport area will be held on opening day.

The branch will carry a full and complete stock of all items and materials required for the sale, installation, and repair of refrigeration equipment, according to Jones.

## Big Toronto Office Building To Be Fully Air Conditioned

TORONTO, Ont., Can.—A new multi-million dollar office building to be erected in downtown Toronto will be completely air conditioned, it was reported by Earle L. Sheppard, Toronto architect.

**Reserve Capacity**  
FOR HEAVY-DUTY USE

**SWEDEN FREEZERS**  
SWEDEN FREEZER  
MANUFACTURING CO.  
SEATTLE 2, WASHINGTON

## 18% Sales Surge Registered In May by Parts Wholesalers; Appliances Up 8%

WASHINGTON, D. C.—Sales of refrigeration equipment and parts wholesalers in May climbed 18% above April while those of appliance and specialties wholesalers were up 8%, according to Bureau of the Census figures.

May sales of both groups gained 1% compared with the same month of 1951.

The bureau contrasted these advances with the decreases below both April and year-ago levels reported by the majority of the 37 kinds of business covered in the agency's May survey. The 18% increase indicated by refrigeration equipment wholesalers was the highest of the 12 trades showing gains over April.

However, cumulative sales of the

equipment wholesalers for the first five months of 1952 lagged 13% behind the comparable period of last year. Year-to-date sales of appliance wholesalers fell even further below the 1951 period, skidding 29%. These declines compare with a drop of 6% for all types of wholesalers reporting to the bureau.

Inventories of refrigeration equipment wholesalers at the end of May were down 3% from both April and a year ago. Those of appliance wholesalers declined 12% compared with April and 32% compared with May 31, 1951. For all wholesale trades, inventories dropped 2% below the April 30 stock level and were 10% under stocks on hand at the end of May last year.

### SALES

Kind of Business and Geographic Division	Per Cent Change		May 1952 Panel	
	May 1952 from May 1951	May 1952 from Apr. 1952	No. of Firms Reporting	Reported Dollar Values (add 000)
Appliances and specialties wholesalers	+1	+8	122	21,795
New England	+10	+3	37	969
Middle Atlantic	-3	-6	40	6,457
East North Central	+3	+19	36	2,410
West North Central	+16	+3	22	2,220
South Atlantic	+41	+21	19	3,926
South Central	+28	+45	5	2,114
Mountain	+8	+10	14	816
Pacific	+5	+5	10	2,893
Refrigeration equipment, parts (com'l)	+1	+15	72	2,276
Middle Atlantic	-3	+12	15	415
East North Central	-16	+12	14	310
West North Central	-34	+48	8	162
South Atlantic	+8	+13	10	525
South Central	+39	+65	4	325
Pacific	-3	+7	9	205

### INVENTORY, END-OF-MONTH (AT COST)

Kind of Business and Geographic Division	Per Cent Change		May 1952 Panel	
	May 1952 from May 1951	May 1952 from Apr. 1952	No. of Firms Reporting	Reported Dollar Values (add 000)
Appliances and specialties wholesalers	-32	-12	99	27,623
New England	-27	-17	10	1,007
Middle Atlantic	-40	-9	19	7,775
East North Central	-35	-20	15	2,929
West North Central	-45	-14	15	3,993
South Atlantic	-13	-12	17	4,584
South Central	-28	-12	11	2,631
Mountain	-6	-4	6	1,529
Pacific	-23	-12	7	3,275
Refrigeration equipment, parts (com'l)	-3	-3	60	4,794
Middle Atlantic	-5	5	12	522
East North Central	-9	-9	17	798
West North Central	-13	0	5	451
South Atlantic	+5	-3	15	1,912
South Central	-	-	-	-
Pacific	-3	+3	9	698

\*Insufficient data to show separately.

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Refrigerator Door Gaskets

Always Demand These Quality Gaskets

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**MIX-MONITOR 5-in-1 FAUCETS**

**SODAMASTER Self-Contained Units and Remote Systems**

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Please send me price and literature outlining the opportunity now open to make bigger profits selling Carbonic Beverage Dispensing Equipment.

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Address \_\_\_\_\_  
City \_\_\_\_\_

● You'll make a lot more money with Carbonic beverage dispensing equipment. There's Supercharger Carbonator—the only patented jet type carbonator using the sensational new recirculating principle for making up to five times more carbonated water in less than half the time needed by any other carbonator on the market! There's the famous Mix-Monitor 5-in-1 faucet—unique new self-cleaning outlet that serves multi-flavored beverages quickly from one spot. And there's Sodamaster and Sodamaster cabinets and systems—revolutionary new equipment offering immediate sale opportunities in every locality in the world! Act now! Your inquiry gets immediate attention at Carbonic!

**CARBONIC CD DISPENSER INC.**

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**Tenney KWIK-FREEZE ICE MAKER**

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That's why, for either standard or special installations, it pays to "take it to Tenney."

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Tenney brings you the advantages of advanced engineering and manufacturing facilities to handle any and every refrigeration problem, for the Tenney line is built to suit your needs. Outline your problem, and let us prove that a Tenney unit will solve it.

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Engineering, Incorporated  
Dept. E, 26 Avenue B, Newark 5, New Jersey  
Engineers and Manufacturers of Refrigeration and Automatic Environmental Test Equipment



## 'Rolling Shops,' Contests, Expert Training Get Credit for Success of Service Dept.

Repairmen Get Same Value from Competition as Salesmen

FORT WORTH—An angle which the refrigeration service firm is often apt to overlook is the fact that competitive contests between refrigeration service crews will help to swell service dollar volume, just as similar contests aid in building refrigeration sales, according to Ray Stapp, service supervisor for Vercal Bourland Home Appliances Co. here.

The Bourland firm maintains one of the largest appliance service firms in Texas, including 28 well-trained refrigeration and general appliance servicemen, as well as 15 salesmen. Operating nine "rolling shop trucks" in one of the best-equipped appliance service shops in the southwest, the company is "new from the ground up."

Vercal Bourland, head of the firm, went into home appliances and commercial refrigeration in 1946, when he spent \$80,000 for a "all visible" appliance store, the service organization, and a big 60-car parking lot to draw traffic.

### SAW THAT DEALERSHIP NEEDED GOOD SERVICE DEPT.

Like a lot of other appliance dealers, with an eye to the future, he realized that no dealership would be able to get along under competitive selling unless it was qualified to maintain the warranty on all of its own merchandise. Therefore, the service shop, its personnel and equipment were all in place before the first major appliance was delivered to the 9-window store on a major highway out of Fort Worth. In a little more than a year, the Bourland concern found its sales volume averaging upwards of \$120,000 a year, with the service department contributing a healthy percentage.

"We started out with five service trucks and five mechanics," Ray Stapp said, "in two Nissan huts, one for sales and the other for service. When we got our present 110 by 79-ft. building, we were able to devote about 40% of it to the service shop,

with plenty of facilities for everything from replacing burned-out electrodes in automatic toasters to completely rebuilding a commercial refrigerator.

### STORE WENT INTO STRICTLY COMPETITIVE SELLING

The store went into strictly competitive selling from the outset. It spends more than \$4,000 a month on newspaper advertising, mostly full-page ads in two or three colors. In every ad, the program calls for a large space devoted to the service department, listing some of the appliances for which the firm is franchised. These include Kelvinator, Bendix, ABC, Apex, Hotpoint, Stromberg-Carlson, Zenith, RCA Victor, Philco, Deepfreeze, Eureka, Easy, and Carrier—the latter for packaged air conditioners.

Using a lot of showmanship in service, Stapp credits the profitable volume turned in by his 28-man service crew to three things:

First, the use of a fleet of nine "rolling shops" all outfitted to handle every aspect of service, which do more than 80% of the entire service volume of the organization in the home.

Second, he credits a clever series of contests between two teams of servicemen, which make it just as important for the serviceman to turn in dollar volume, as the appliance salesman himself.

Third, expert training and help to all servicemen on the staff.

### SETS UP OWN SERVICE SCHOOL

Experiencing many of the same difficulties of obtaining good servicemen as other dealers, Stapp has set up a school in the appliance service shop, which has won recognition throughout the southwest. Under the program, new trainees, either under the Veteran's Administration or on their own go through a 60-day apprenticeship training period in the shop under Stapp's watchful eyes.

Each man is given just enough time to develop efficiency in repairing particular appliances. At the end of that time he is tested by Stapp himself. After he has gone through the 60-day program, Stapp has a pretty clear idea of whether the service mechanic will be able to make the work profitable to both himself and the management.

When a man's ticket is approved, he is put on the payroll permanently, given a truck, and assigned a slot in the regular work-production schedule of the firm. Due to the unusually high percentage of service work volume done outside the shop, the servicemen are at the shop only early in the morning when they pick up their schedules, tools, and parts, and again at the end of the day when they return the truck to Bourland's well-arranged garage.

A control center, similar to those used at modern airports, is maintained in the service shop, where two dispatchers handle a large volume of incoming service calls, route the men to the proper spots, and otherwise make sure that no emergency goes unanswered. Deploring the familiar "busy line" problem, Stapp has arranged for unlisted telephone numbers, which servicemen use in calling in.

The servicemen, in assigned shifts, are on duty 24 hours a day, each receiving special compensation for the period during which he is on call. Each man is on night duty an aver-



"Slants on Service" is a "package" devised by the NEWS to meet the needs of its busy readers in the service and contracting business.

age of once a week, the time split up equally among the 28 men.

As pointed out before, the \$100,000 a year of the Bourland concern involves a lot of service dollar income. Responsible for this is the fact that Stapp develops contests for his men which are almost exactly the same as those for 15 appliance salesmen in the company. Under this plan, the service crew is divided into two teams, each under a leader, who competes each month for the maximum amount of dollar volume, as turned in to the bookkeeping office, and scored to their credit.

Bourland provides the incentive, in the form of a dinner held once a month during which the prize-winning team enjoys a big Texas T-bone steak, while the losing team eats merely a plate of beans. During periodic intervals, when he wants to build service rapidly, Bourland provides extra prizes in the form of a home freezer to the serviceman who individually turned in the largest dollar volume, new suits of clothing for second and third prize winners, and an electric shaver to the fourth place winner.

### SOMETIMES MORE THAN TWO CONTESTS PER MONTH

Frequently the contest is stepped up so that there are two or more over a single 30-day period. As soon as one contest ends, another begins, and there is much intense competition between the two to get as many service calls turned over as possible.

Incidentally, if there is a complaint, or necessity for a free callback on any such job, an extra penalty is applied—to make certain that every serviceman turns out work which the Bourland concern can thoroughly back up.

Servicemen are paid special incentive bonuses in addition to the contest and the prizes resulting, plus a profit-sharing plan, final details of which are being worked out. Through good training, careful selection of young married men with the future in mind, the company has had little of the high personnel turnover which has dogged the steps of other large-scale service organizations.

### TRRF, NARW To Sponsor Training Program In '52

COLORADO SPRINGS, Colo.—A technical conference program emphasizing training, new facts, and new developments will be sponsored next year by the Refrigeration Research Foundation and the National Association of Refrigerated Warehouses, TRRF reported recently.

Conferences will be staged in St. Louis from Feb. 2 to 5, 1953 and in San Jose, Calif. from March 2 to 5.

TRRF said that this is a renewal of the technical conference program that it sponsored a few years ago.

### Charters Charlotte Distributor

CHARLOTTE, N. C.—Major Appliance Distributors, Inc. with capital of \$300,000 has been chartered by the Secretary of State to deal in machinery and equipment. The charter was granted to A. D. Sickles, G. M. Lowe, and Margaret Bomar, all of Charlotte.

### Why Place Heat Exchanger Outside Freezer Area?

In a recent article on heat exchangers appearing in the NEWS, Al Lincoln of the Heat-X-Changer Co. stated that on low temperature applications, the heat exchanger should be mounted outside the refrigerated area.

Reader G. S. Storey of Charlotte, Prince Edward Island, Canada wrote in to ask why.

Here is Lincoln's reply:

"The heat exchanger is mounted outside of the room as close to the expansion valve as possible. The reason for this is to superheat the suction gas going back to the machine to prevent the lines from sweating and loss of efficiency (due to cooling of the air and condensing of moisture on the suction line). These are pipe losses and can be avoided.

"If the heat exchanger were mounted inside the room, the gas would be superheated (heat added above saturated vapor temperature). However, when it left the heat exchanger, it would give off this heat to the room and itself would be cooled. In turn it would sweat and lose capacity after leaving the box.

"In low temperature work, losses in piping can go as high as 5%."

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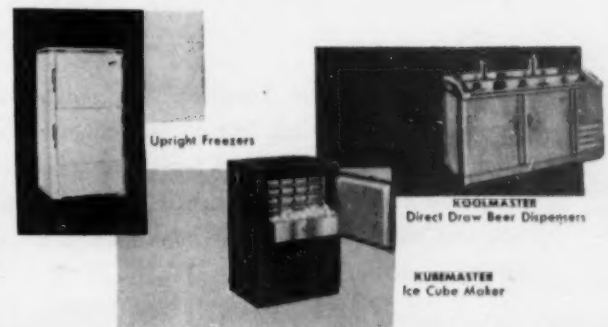
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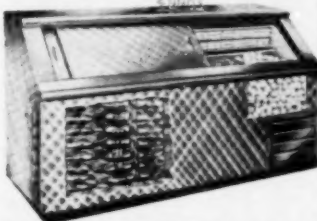
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The ideal case especially designed for Night Clubs, Taverns and other businesses

### Beautiful Gleaming Stainless Steel

Powered by General Electric Hermetic Unit

This Model 1-4 Self-Contained unit makes 180 lbs. of ice cream and dry soups 2000 12 oz. bottles daily. REMOTE TYPE MODEL 1-4 dry soups 2000 12 oz. bottles daily. Provided with adjustable separators for 10 different brands of beverages.

• POLYETHYLENE ROTO TRAYS  
Just twist and you have as many ice cubes as you need at any time.

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Exclusive Franchise available to dealers and distributors.

There's always one that's better...and in controls it's Ranco!



Ranco controls are outstanding and the reason is apparent: dependable, accurate Ranco controls are available for more than 4,000 replacement installations—domestic refrigerators, milk coolers, water coolers and commercial units of every type. They're the first choice of expert refrigeration men everywhere.

**Ranco Inc.**  
COLUMBUS 1, OHIO



WORLD'S LARGEST MANUFACTURERS OF REFRIGERATION CONTROLS



## OFF THE CHEST

### HOW CAN I DEVISE AUTOMATIC DEFROST?

7219 Freeman Ave.  
Los Angeles, Calif.

Dear Sir:

I am an electrician employed by the Los Angeles Dept. of Water & Power. The News has been available to me and I have been reading it with great interest and getting some very worthwhile information from it.

I have a problem and perhaps you can aid in its solution. The background is the following: I purchased a home last year and in the kitchen

was a niche for a refrigerator. The spot was such that only a box with a left hand door would fit. The only box that I could find that would fit the niche was a Westinghouse; all other boxes were too wide for the space. After scouring the town and not being able to find a box with the automatic defrosting feature I was forced to purchase the unit I have now. A Westinghouse model No. DC 84 LH.

The problem now is to add some

sort of an automatic defrosting service. I contacted Westinghouse and they said it was not possible to do so. G-E had no solution either. A couple of refrigerator repair shops also refused to attempt to try at a solution. Hence, I am writing to you for advice and perhaps a solution.

I have been told that a simple time clock defrost device is not safe due to the fact that the frozen food will defrost while the frost is melting. Hence, in casting about for an idea the following occurred to me. To procure a flexible waterproof heating or resistance cable to wrap around the evaporator. This cable to be controlled outside or inside the box by a time clock that would daily cut off the box and cut in the cable for the required time. Five, 10, or 20 minutes or whatever will be necessary to more or less flash melt the frost without injuring the food in the freezer shelf.

The questions that arise are as follows: Is such a flexible waterproof cable available? Is there a time clock with an adjustment of such a small span of control available at a minimum cost? Who might manufacture it and would I be able to purchase same? Is the entire idea practical? Perhaps you can offer a better solution. Or perhaps a simpler bit of apparatus. I have not heard of any such equipment on the market although such a kit would find a ready market.

ABRAHAM BOGDANOFF

### 'ALWAYS A PLEASURE'

P. W. Price Advertising  
Erie, Pennsylvania

Editor:

We enjoy your column very much. The humor and bits of information are always a pleasure.

P. W. PRICE

### 'ANYTHING HE (REED) WRITES ON IS GOOD'

Rapid City A. F. Base  
Weaver, S. D.

Editor:

Just a few words to let you know how much I enjoy Paul Reed's column. I think he is tops in the field of refrigeration.

After reading the June 16 issue installment on "Automatic Defrosting" I am sorry that I have not written before to say how much I have enjoyed his works. I have most of his volumes, and save all of his articles from AIR CONDITIONING & REFRIGERATION NEWS.

Anything he writes on is good. Please let him keep it up.

T. Sgt. J. F. HAMILTON

### READER SEEKS ADDRESS OF 'STUPID DEALER'

Electric Appliance Mart  
Chicago 15, Ill.

Editor:

Would like the name and address of the stupid dealer mentioned who states "Anybody who buys appliances at retail is illiterate or has bad credit."

The appliance business is bad enough without the dealers themselves advertising it. After all, the retail business is the American way of life and this dealer is sabotaging not only the appliance but all retail business. He should be stopped now.

If you can furnish his location I will see that he hears from us.

H. WOLLENHAUPT

### STORE HOURS ARE SOURCE OF NEVER-ENDING WONDER

Cleveland 11, Ohio

Editor:

I have just read your editorial in AIR CONDITIONING & REFRIGERATION NEWS on June 23 re: shopping hours.

It is a source of never-ending wonder to me that stores in general have not long ago kept more evenings open.

People must work and to work eight hours a day consumes about 11 of the day's hours. It is not easy to make arrangements to get off to do some shopping in the day time and many people would have to give up some of their pay.

What is more sensible than that establishments which depend on the free time of the public should be open when the public is free.

J. J. FOKARING

### OFFICE GIRL GETS FACTS FROM READING AC&RN

Kalamazoo, Michigan

Editor:

Your column is my first reading in the News, and since I open the mail I get your wonderful jokes first. Since I'm the only girl in our office, I get a good insight into the refrigeration industry—and I like all of it. We sell and service both commercial and domestic equipment, and I like to think that I am doing my part by knowing as much as possible about the working parts of the equipment so that I can talk to our customers intelligently in regard to both sales and service, so I get a great deal of information from the News.

BARBARA J. COSBY  
R. E. Smith & Co.

### CHROME FURNITURE at LOW...LOW PRICES



Booth Illustrated

single \$39.50 list

double \$59.50 list

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BIANCO manufactures quality chrome furniture at prices that command fast sales action. A complete line from deluxe to economy. Booths...settles...tables...wall panels. Upholstered in rugged Duran for long life.

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## Have You Ordered YOUR Quota Yet?

### Timely New Book Presents Original Suggestions

Just what IS the American Way, anyhow? We may know what we're against, but do we know what we are for? Which are the causes of our fears and uneasiness? What can we do about the "fix we're in," and how can we find peace and contentment? This book gives some remarkably interesting answers.

By George F. Taubeneck

(The "Inside Dope" Man)

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## Peace and Progress

How To Be  
Happy  
Despite  
The Politicians

by  
George F.  
Taubeneck

CONJURE HOUSE

America largely is a nation of middle-class people. Its elections are swung by independent voters, and its directions pointed by men and women who seldom raise their voices.

At the same time vociferous elements in our country usually represent biased pressure groups.

Most of the clamorous pleaders and writers who claim our attention have been partisans. As a rule they advocate either Left or Right wings of opinion. Caught between such crossfires, the normal citizen seldom sees his own position stated satisfactorily.

This book attempts to define the American Way fairly—and excitingly—in a manner which unselfish citizens may approve with confidence, and cheer with appreciation.

PEACE AND PROGRESS is presented as a reasonable synthesis of the attitudes and thinking of thousands of "grass roots" Americans to whom the writer has listened over a span of three decades. Additionally, it contains novel and stimulating ideas for doing something about the "fix we're in."

### Conjure House Division

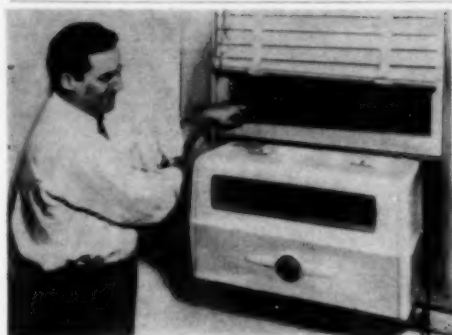
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8-18-52





NEW 1/2 hp. "install it yourself" room air conditioner introduced by the Quiet Kool Div. of the Quiet Heat Mfg. Co. Balancing its main weight on the window sill proper, the unit can be installed in 30 minutes.

## Quiet Kool--

(Concluded from Page 1, Column 2) anyone in about 30 minutes.

"The first step involves attaching a window sill mounting angle, which is screwed to the window sill. The room air conditioner is then hooked to the mounting angle, and firmly anchored with specially designed window sill clips, an exclusive feature of the line.

"The entire unit can be leveled by adjusting the leveling screws on each side.

"Matching color filler panels slip into the space between the air conditioner and the window frame. The unit is then weather sealed with rubber window moulding, and weathering felt, to complete the installation."

The unit operates on the regular 115-volt, a.c. line. Model No. is G3A.

Because of its window sill clips, the entire unit can be readily removed, and the air conditioner can be stored or moved without any expense or difficulty, according to the company.

A detailed instruction sheet is furnished with each room air conditioner outlining the five-step plan of installation.

The cooling capacity of the air conditioner "efficiently serves bedrooms up to 350 sq. ft., and rooms up to 230 sq. ft. if used both night and day," the company said.

## Higher Prices--

(Concluded from Page 1, Column 5)

He contends that the new law is just as unconstitutional as the old one, violating the "due process" clause by binding him to a contract signed by another retailer.

The Wall St. Journal, in a 12-city survey, found appliance dealers enjoying good sales, though in some cases at less than list price. But they are cautious about placing large orders for more goods. The paper said they were particularly resistant to any "shortage" talk on the part of distributor and manufacturer salesmen, and felt that "wolf" had been shouted at them once too often.

## New Refrigerants--

(Concluded from Page 1, Column 3) tion equipment will be handled by our own sales organization with offices in 28 cities throughout the United States. The program for merchandising through wholesale channels is being developed."

Both of the products will also have application in the aerosol field, it was said.

General Chemical has been producing Genetrons for a number of years as part of its fluorine research and development program. Among them are ethylidene fluoride (Genetron 100), and 1,1,1 difluoroethane (Genetron 101), whose primary uses are as constituents of refrigerants and dispersants for liquefied gas aerosols and other pressure-propelled products. They have also been under investigation as intermediates in several industrial fields.

The company is one of the nation's primary producers of fluorine chemicals, having started its activities over 50 years ago with inorganic fluorides. Today, it offers some 70 organic and inorganic fluorine compounds for industrial and research applications. They are used in such diverse fields as oil refining, metallurgy, electroplating, dyeing, glass and ceramics, public health, and others.

Another of General Chemical's current fluorine activities is the construction of a large plant near San Francisco, to produce aluminum fluoride for use by Kaiser Aluminum and Chemical Corp. in making metallic aluminum.

It is a basic producer of hydrofluoric acid and elemental fluorine, the two primary materials from which most such chemicals are made. The company also maintains its own mines which supply the raw materials for these products.

## Southeastern Distributors Moves

MEMPHIS, Tenn. — Southeastern Distributors of Memphis, Inc., which handles Amana freezers and other products, has occupied new quarters at 285 West Trigg. The company formerly was at 137 East Calhoun.

## Future of Air Conditioning--

(Concluded from Page 1, Column 2) windows up and down, fight with screens, adjust radiators, and try to pacify furnaces. He will simply set a thermostat and forget it. . . . The non-air conditioned house is today's horse and buggy."

According to Time, one of Wampler's pet dreams is covered streets, fully air conditioned and reserved for pedestrians. As Time put it:

"The motorists," he adds, dead serious, "would use the roofs of the streets for driving their air conditioned cars. When we get to that point, we'll get away from the one criticism we've met with—the fact that people don't like to walk out of an air conditioned building into the terrific heat."

The article was headlined, "The Heat Hater." The "news" lead was the switch-flipping ceremony in Pittsburgh recently when Wampler turned on the "world's biggest private air conditioning system: a \$5,000,000 complex which cools 68 floors in the three-building Gateway Center in Pittsburgh's new Golden Triangle of modern office buildings."

"It was a fitting event," said Time, "for last week Carrier also celebrated the 50th anniversary of the air conditioning industry fathered by its founder, Willis Carrier."

"In those 50 years, air conditioning, which was once considered a luxury, has become standard practice. In the last 10 years, Carrier Corp., which is the biggest industrial conditioner and has about 15% of the home market, has quadrupled its gross to \$80 million, and tripled its net to \$3.6 million."

Outlining briefly Carrier's history, Time said:

"Real horses and buggies filled the roads when Willis Carrier, a young

Cornell-trained engineer employed by the Buffalo Forge Co., founded the modern air conditioning industry in 1902. His first client was a Brooklyn lithograph company which had trouble because varying humidity in the shop made its paper contract and expand. Carrier devised a system which not only controlled humidity but cooled and circulated the air as well.

"A few years later, Carrier set up his own company with \$35,000 capital. Soon he was providing equipment for candy-making plants, dusty tobacco factories, textile mills, the film industry, and hotels.

"Not till the Depression did Cloud Wampler appear on the scene."

(Time noted that "Cloud" was Wampler's mother's maiden name.) "Wampler, a Knox College (Ill.) graduate was a successful investment banker with Chicago's Lawrence Stern & Co., specializing in real estate; one of his tenants in Chicago was Carrier Corp.

"When Carrier, hard hit by hard times, asked for a rent reduction, Wampler coldly replied that the company needed a lot more than that. He became financial advisor to Carrier, and a company director in 1934; seven years later, he became executive vice president at \$25,000 a year and president 10 months later. (Chairman Willis Carrier died two years ago, at 73.)

"Wampler promptly went after and won big defense contracts. During World War II, Carrier equipment air conditioned ships, defense plants, and government buildings (its Pentagon installation is the biggest air conditioning system in the world), kept food cold for the armed forces, simulated the low temperatures of high altitudes in wind tunnels.

"Once, on a hurry-up job for two synthetic rubber plants, Wampler yanked out the air conditioning system in Manhattan's swank Tiffany & Co. jewelry store and shipped it to Oklahoma and Texas.

"To save space, Carrier devised a system which eliminated large cooling ducts. Instead, it compressed the air and shot it through small pipes.

"Wampler plugged the economic advantages of air conditioning. He showed how it could increase productivity in factories and offices, boost retail sales. 'Go to a man and say, 'I'll make you more money.'"

## Refrigerated Custards--

(Concluded from Page 1, Column 4) those trucks from May until October.

The new ruling will have far-reaching effects on the retail food trade in Buffalo and now is receiving considerable attention from the Buffalo Retail Bakers Association, as well as chain and independent food stores.

To comply with its provisions, baked goods retailers will have to install refrigerated display cases. It is reported that the majority of outlets now handling perishable baked goods do not have such refrigeration equipment.

Bakers and food store owners point out that the volume of cream goods sold is not sufficient to occupy an entire refrigerated case, or in most instances to warrant expense of its purchase. They are considering what other types of baked goods or food items could be kept in such a case to make its operation profitable.

Indications are that some smaller bakeries and food stores will stop handling custard-filled items rather than make the investment in a refrigerated case. But many of the larger outlets are expected to comply, anxious to continue to handle these perishable products.

Action of the County Health Department was reported to have stemmed from several cases of food poisoning here in recent years, resulting from cream filled baked goods which have deteriorated from lack of refrigeration.

The section of the Erie County Sanitary Code referring to refrigeration of these items states:

"No custard-filled product and no other perishable food shall be kept, displayed, or offered for sale in or from any bakery, store, place, or vehicle unless it shall have been refrigerated at a temperature not over 50° F. from the time of manufacture until the time of delivery to the consumer.

"Between the first day of May and the first day of October each year no such product shall be transported in any vehicle unless it is kept at or below 50° F."

The Sanitary Code further states: "No custard-filled product shall be sold either wholesale or retail or transported for retail delivery unless it shall be wrapped or packaged so as to protect the contents from contamination and such wrapper or package shall bear prominently displayed on the outside thereof in legible letters the name of the manufacturing baker, the day of manufacture, and the following statement: 'Refrigerate and Consume Today.' No custard filled products shall be displayed, offered for sale, or sold except on the day of manufacture thereof."



ALLEN SCHILDHAMMER

## Office In Chicago Opened by 'News'

DETROIT—Opening of a new office in Chicago has been announced by Business News Publishing Co., publisher of AIR CONDITIONING & REFRIGERATION NEWS.

The office is located at 134 S. LaSalle St. and will be under the direction of Allen Schildhammer, western advertising manager of the NEWS. Telephone number of the new office is FRanklin 2-8093.

Establishment of an eastern office was announced earlier by the NEWS. This is located at 521 Fifth Ave., New York City, and is managed by Robert M. Price, who is advertising manager.

Both the Chicago and New York offices are intended to provide a more convenient and faster service for readers and customers of the NEWS.

## Universal Sales--

(Concluded from Page 1, Column 4) was a good indication that Universal soon will be making monthly shipments of \$2,000,000 as predicted, thus strengthening the forecast that the company's sales volume will exceed \$20,000,000 for the 1952 fiscal year. Universal's long-range planning, he added, is based on attaining an annual sales volume of two to three times that figure.

## SELL THE LEADING LINE OF COMMERCIAL REFRIGERATION EQUIPMENT!

### SUPREME BOTTLE COOLER

Schools are opening up. Here's the perfect product to open up the school market for you. Yes, economy and efficiency team up to make this low price-high quality cooler more and more popular in schools, restaurants and hotels where refrigerated storage for milk and other dairy products is needed. Exterior blue baked enamel or stainless steel. . . . stainless steel lids. . . . 3" Fiberglas insulation. . . . Model 461 4 ft. length illustrated, also available in 6' length.



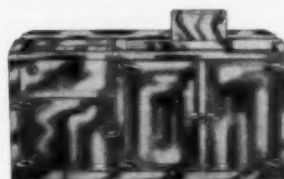
### SELF-CONTAINED BOTTLE COOLER

Take a look at the sleek beauty of this new cooler—the spacious interior, the convenient shelving arrangements and careful construction. Well insulated stainless steel doors "slide away" at the touch of a finger. . . . adjustable partitions. . . . 3" Fiberglas insulation. . . . 4', 6', 8', and 10' models—extra bottle capacity and c.f.m. cold air circulation.



### THE CLUBSTER

Compact, all-in-one unit holds 2 half barrels on top while one proceeds under the spacious 3 case bottle compartment. Complete with refrigerated faucets which keep beer at ideal temperature from keg to glass—this beautiful model comes in stainless steel (illustrated) or black baked enamel.



## LA CROSSE COOLER CO.

Factory and Gen'l Offices: 2801 Losey Blvd. S., La Crosse, Wis.  
Export Office: 80 Broad St., New York City. Cable Address: Eximport

## ROTARY SEAL Replacement Units

AT ALL LEADING JOBBERS

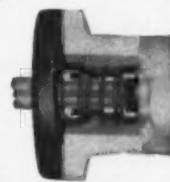
Easy to Install . . . . .  
Efficient in Operation . . . . .  
Simple in Construction . . . . .  
Economical . . . . .

For Commercial, Semi-Commercial, Air Conditioning, and Household Refrigerator Compressors . . . over 20 years of performance proof . . . Units available for all standard makes.

AVAILABLE FOR MORE THAN 900 COMPRESSOR MODELS

UNIT NO.

4215



"Seal with

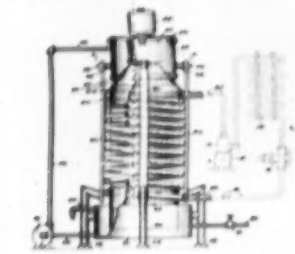
Certainty!"

2020 NORTH LARRABEE STREET  
CHICAGO 14, ILLINOIS, U.S.A.  
CANADIAN AGENT: 2025 ADDINGTON AVENUE  
MONTREAL 28, QUEBEC, CANADA

# PATENTS

Week of June 17  
(Continued)

**1,606,732. EVAPORATIVE CONDENSER.** Arthur E. Bumpers, Jr., Council Bluffs, Iowa. Application Dec. 7, 1946, Serial No. 63,989. 3 Claims. (Cl. 357-37.)



1. In a condenser, the combination which comprises a vertically disposed pipe coil having an outlet connection at the upper end and an inlet connection at the lower end, the space between the convolutions of said coil increasing in width progressively toward the lower end of the coil, a frusto-conical shape baffle positioned upon the upper end of the said coil with the diameter of the lower end of the baffle being less than the outside diameter of the coil, said baffle having a depending skirt extended downwardly and positioned against the inner surface of the coil, a horizontally disposed water collecting tank below the coil and positioned to receive water dripping from the coil, a cylindrical guide baffle positioned inwardly and in spaced relation to said tank and extended upwardly into the lower end of the coil and extended downwardly into the tank and to a point below the level of water in the tank, spaced vertically disposed supporting bars positioned against the outer surface of the coil and having outwardly offset

lower ends extended over the peripheral wall of the tank, means supporting the said tank by the said offset lower ends of the support bars, a cylindrical hood having a perforated inwardly extended rim on the lower end positioned above the said frusto-conical shape baffle on the upper end of the coil, means supporting the said hood from the said support bars, with the hood positioned to lead water supplied thereto to the outer surface of the said frusto-conical shaped baffle, a horizontally disposed fan mounted on the upper end of the frusto-conical shaped baffle and positioned in the said cylindrical hood for exhausting air from the interior of the coil, means recirculating water from the tank to the hood, and means regulating the water level in the tank.

Week of June 24

**1,601,841. REFRIGERATOR CABINET.** Edwin R. Boddy, Erie, Pa., assignor to General Electric Co., a corporation of New York. Application Oct. 3, 1946, Serial No. 790,901. 15 Claims. (Cl. 208-15.)

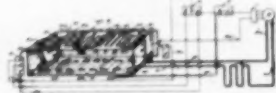


1. In a refrigerator cabinet, an outer shell having thereon an attaching portion, an inner liner disposed in spaced relation to said outer shell and having thereon an attaching portion, means including a spacer member for maintaining alignment between said outer shell and said inner liner, said spacer member having integral means at each end thereof, interlockingly engaging said attaching portions of said outer shell and said inner liner, and resilient means including a recess for receiving an edge of said spacer member to lock said spacer member in position.

**1,601,686. DEFROSTER CIRCUIT.** Benjamin D. Thomas, Cincinnati, Ohio, assignor to Avco Mfg. Corp., Cincinnati, Ohio, a corporation of Delaware. Application June 28, 1950, Serial No. 109,196. 3 Claims. (Cl. 60-4.)

1. In an electrical refrigerator of the

type energized by two supply mains and comprising a compressor motor and an evaporator, a defrosting device comprising, in combination, a connection from one supply main to said motor, an electric heater disposed adjacent said evaporator, a connection from said one supply main to said heater, a timing device, a first single-pole double-throw circuit selector having a movable contact connected to the other supply line, said first selector be-

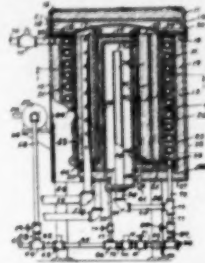


ing actuated by said timer to stop the motor by circuit breaking and to energize the heater by circuit making when defrosting is initiated, said selector including a first fixed contact in circuit with said motor and a second fixed contact, a thermostat disposed adjacent to said evaporator, a second single-pole, double-throw circuit selector having a movable contact connected to said second fixed contact, said second selector being actuated by said thermostat to de-energize the heater by circuit breaking to restart said motor by circuit making when defrosting is completed, said second selector including a third fixed contact in circuit with said heater and a fourth fixed contact in a conductive path with said first fixed contact, and means coupling the first circuit selector to said timer for reactivation by said timer to assure restarting of said motor by circuit making and de-energizing of the heater by circuit breaking at the end of a predetermined interval.

**1,601,493. COOLER AND CARBONATOR.** John L. Barr, Baltimore, Md. Application Aug. 28, 1948, Serial No. 46,573. 3 Claims. (Cl. 257-442.)

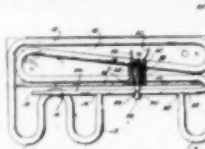
1. A heat exchanger for beverages comprising an outer casing, a cylinder within said casing and spaced therefrom, insulating means between said cylinder and casing, a centrally perforated bottom plate for said casing, said casing having an open upper end, a shell within said cylinder and spaced therefrom, a coiled pipe in the space between the cylinder and shell for receiving a cooling medium, a second shell in said casing inwardly spaced from the first shell, baffle means between said shells, an inner cylinder in the casing

spaced inwardly of the second mentioned shell and extending within the perforation in the aforesaid bottom plate, means



for supplying a cooling medium to the coiled pipe and inner cylinder and for withdrawing it therefrom, and means for supplying a beverage to the space between the shells and for withdrawing it therefrom.

**1,601,548. RESTRICTING VALVE.** Evans T. Morton, Chicago, and George R. Held, Chicago, Ill., assignors to Admiral Corp., Chicago, Ill., a corporation of Delaware. Application Jan. 2, 1947, Serial No. 719,670. 3 Claims. (Cl. 68-4.)



1. In a refrigerant circulating system, tubing forming alternative paths for refrigerant flow, one of said paths normally presenting less resistance to refrigerant flow than the other path, a restriction in the low resistance path, said restriction comprising a normally open valve includ-

ing in combination, a valve body, a pair of diametrically opposed openings in said valve body communicating with the tubing, a plunger reciprocable in said valve body, said plunger having a portion substantially but not completely filling the cross sectional area of said valve body adjacent said openings so as to provide a capillary-like space between said plunger and said valve body when the valve is closed substantially to prevent the flow of liquid refrigerant there-through but to permit the free flow of gaseous refrigerant therethrough, said plunger having a second portion of reduced cross sectional area adjacent said openings when the valve is open, and means associated with said plunger for moving said plunger in only one direction, said plunger returning to its first position by gravity.

(To Be Continued)

## GENERAL SERVICE MANAGER

Leading comm'l refig. manufacturer with National retail sales organization requires high caliber general service manager to develop national service organization. Experience essential in engineering and production liaison, servicemen training, service manuals, procedures, and accounting. Position requires travel. High potential in compensation and opportunity for advancement. Send resume of personal and business history to Box 4010, Air Conditioning & Refrigeration News.

## CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$5.00 per insertion. Limit 50 words. 10¢ per word over 50.

RATES for all other classifications \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count. Please send payment with order.

### POSITIONS WANTED

**SALES ENGINEER.** with 45 active REWA accounts on the eastern seaboard, desires additional lines. Many years experience in pioneering new items, vigorous and consistent coverage of accounts. First class references. Own New York office. THEODORE CORNELIUS, 220 Broadway, New York.

**SERVICE MANAGER:** desires permanent position with dealer or distributor in warm dry climate for benefit of wife's arthritic condition. Fifteen years experience in management of sales and service of refrigeration, air-conditioning and major home appliances. Highest type reference available upon request. Reply to Box 2983, Carroll Station, Baltimore 20, Maryland.

**SERVICE ENGINEER.** 22 years of experience installing and servicing domestic, commercial and industrial refrigeration equipment, wishes responsible position other than servicing. 48 years of age, married and two children. Reply to BOX 4059, Air Conditioning & Refrigeration News.

**BUSINESS MANAGEMENT.** sales and sales promotion executive with 18 years' corporation experience in the air conditioning - commercial and industrial refrigeration industry. Ability to handle and get along with people. Aggressive. Capacity to make decisions and assume heavy responsibilities. Correct age. Wide industry acquaintance and following. Available September 1. BOX 4060, Air Conditioning & Refrigeration News.

**MANUFACTURERS' REPRESENTATIVE.** covering Georgia, Florida, South Carolina, desires additional line of refrigeration, air conditioning, or related equipment. Sixteen years experience refrigeration and air conditioning contracting and sales. Established and well known among chain stores, contractors, jobbers, ice cream manufacturers, architects, and engineers. This area. BOX 4068, Air Conditioning & Refrigeration News.

### POSITIONS AVAILABLE

**DESIGN ENGINEER.** Household appliance product designing and general engineering. Will require appropriate experience, but engineering degree not necessary. Permanent position with a progressive company. Write giving complete information regarding experience, training, and approximate salary expected. THE O. A. SUTTON CORPORATION, 1812 West 2nd St., Wichita, Kansas. Manufacturers of VORNAO products.

**LABORATORY ENGINEER.** Able to set up and operate refrigeration test equipment. Experience or training in refrigeration and knowledge of basic physics required. Opportunity for advancement in accordance with ability and initiative. Permanent position with the manufacturers of VORNAO products. Write giving details, experience, training, and approximate salary expected. THE O. A. SUTTON CORPORATION, 1812 West 2nd St., Wichita, Kansas.

**SERVICE MANAGER wanted.** Leading air conditioning company southeast Florida has opening for qualified man to handle air conditioning service department. Must have 10 years experience in all phases of servicing air conditioning equipment and handling ten plus servicemen. Reply in detail, past experience. BOX 4064, Air Conditioning & Refrigeration News.

**APPLICATION ENGINEER.** M.E. graduate with knowledge and experience in handling low temperature humidity, cabinets. Must be able to calculate and balance heat loads; selection of proper refrigeration equipment—compressors, coils, and accessories; prepare layout details for systems; estimate job costs and sales engineering contacts. Good knowledge of developing new systems and refrigeration methods, field installation and supervision, testing and specification coordination. State age, education, and experience. All replies will be held confidential. BOX 4067, Air Conditioning & Refrigeration News.

**SALESMAN:** ONE of the leading manufacturers of commercial refrigeration components is in need of a successful salesman for an eastern territory. This is more than the usual opportunity . . . it can be a secure connection for a conscientious man well experienced in contacting jobbers and manufacturers. Send references and complete information regarding sales experience. BOX 4069, Air Conditioning & Refrigeration News.

**PRODUCT ENGINEER** for domestic refrigerators and home freezers with full knowledge of capillary tube systems and capable of co-ordinating with production. For a Canadian subsidiary of a U. S. manufacturer. Our employees know of this advertisement. All replies in strict confidence. Reply to BOX 4072, Air Conditioning & Refrigeration News.

### EQUIPMENT FOR SALE

**CHEAPER** to replace than repair 1/4-HP motor compressor assemblies with starting relay and capacitor, specially priced @ \$38. Write for additional information. MANN REFRIGERATION SUPPLY CO., 440 Lafayette Street, New York 3, N. Y.

**SACRIFICING MODEL** FDSISA 18 cu. ft. display freezers with superstructure and Thermopane glass sliding doors. Only \$371 each, f.o.b. New York. Last price \$714. For complete details, write or call MANN REFRIGERATION SUPPLY CO., 440 Lafayette St., New York, Gramercy 3-9000.

**ATTENTION SERVICEMEN.** Send for our new catalog on controls, valves, relays, brass fittings, V-belts—hermetic and open type units. All new merchandise at great savings up to 50%; sold on money back guarantee. WALTER W. STARR REFRIGERATION, 2833 Lincoln Ave., Chicago 13, Illinois.

**AIR CONDITIONING** coils, chilled water type, sizes 29" by 108", 35 by 108" and 29 by 72", all active tube length. Immediate delivery from New York manufactured by the Young Radiator Company. WRIGHTSON & CAMPION, 55 West 42 Street., New York 36. Phone Penn. 6-5298.

### BUSINESS OPPORTUNITIES

**REFRIGERATION SERVICE** shop for sale. Well equipped. Doing good business. Name established for many years. Ideal for partners. Located on east side of Detroit. \$4500 total price. BOX 4073, Air Conditioning & Refrigeration News.

### MISCELLANEOUS

**NORGE SEALED** units remanufactured or exchanged. Immediate delivery from stock. 2 year warranty. Freon refrigerant. Write for prices and shipping instructions. Genuine Norge terminals for Norge sealed units. Sets of three, \$115 plus postage. MODERN REFRIGERATION CO., INC., 12541 E. McNichols Road, Detroit 17, Michigan.

**PARTY INTERESTED** in buying established refrigeration wholesale supply business or would consider investing as active partner. Has had several years experience in the line of refrigeration. Florida preferred but not essential. BOX 4071, Air Conditioning & Refrigeration News.

"SEE YOU AT THE POLLS!"

"SEE YOU AT THE POLLS!"

"SEE YOU AT THE POLLS!"

Nobody knows for sure how it started—this line about "See you at the Polls!" we're hearing all over these days.

Best explanation seems to be that it came from that state candidate out west. . . His opponent in a debate got all riled up and challenged him to fight it out in the alley.

But he said—"I'll settle this the AMERICAN way—I'll see you at the polls!" And the audience picked up the chant.

Now everybody's saying it—and on Nov. 4 everybody will be doing it!

"SEE YOU AT THE POLLS!"

"SEE YOU AT THE POLLS!"





## G-E Fractional Hp. Motor Activities Decentralized Into 4 Major Sub-Depts.

FORT WAYNE, Ind.—A decentralization of the General Electric Co.'s Fractional Horsepower Motor Dept. into four separate sub-departments, each with a general manager, was announced recently by Manley E. Lord, department general manager.

The new sub-departments and general managers are: General AC Motor Sub-Dept., Lisle D. Hodell; Hermetic Motor Sub-Dept., Ab Martin; Specialty Motor Sub-Dept., Jack J. Clarkson; and Electric Sink and Laundry Motor Sub-Dept., Carl W. Moeller.

Headquarters for all four groups will be at Fort Wayne, Ind.

The reorganization is part of a company-wide decentralization program, Lord stated in explaining the changes.

The General AC Motor Sub-Dept., which includes all a-c motors for general purpose application, will consist of manufacturing operations at Fort Wayne, Decatur, and Linton, Ind.

Section managers assisting Hodell will be: Lee R. Beard, manager-engineering; Leo W. Kuttner, manager-manufacturing; William R. Boggess, manager-marketing; Clifton Duncan, manager-finance; W. Kenneth Williams, manager-advanced manufacturing development; John F. Welch, manager-Decatur Plant; and George W. Auer, manager-Linton Plant.

Included in the Hermetic Motor Sub-Dept. are manufacturing operations at Fort Wayne and Tiffin, Ohio. Martin's staff will comprise:

Robert W. Snyder, manager-engineering; David C. Hanson, manager-marketing; Edgar F. Waldschmidt, manager-finance; and Harold E. Boles, manager-Tiffin Plant.

The Specialty Motor Sub-Dept. operations, concentrated at Fort Wayne, consist of all series, d-c, specialty and defense motors. Serving as section managers under Clarkson will be:

Irvine E. Ross, manager-engineering; Adolph J. Rose, manager-manufacturing; Joseph J. Horan, manager-marketing; Paul M. Deal, manager-finance; and Harold B. Carter, manager-advanced engineering development.

Principal manufacturing operation of the Electric Sink and Laundry Motor Sub-Dept. is at De Kalb, Ill. Assisting Moeller as heads of the various sections in this group will be:

Lowell L. Ray, manager-engineering; Merton W. Edgar, manager-marketing; Alfred K. Scripture, manager-finance; and Eugene F. Harrison, manager-De Kalb Plant.

### Rheem Names M. A. Straub Asst. National Sales Mgr.

NEW YORK CITY—Maurice A. Straub has been named assistant national sales manager of heating equipment for Rheem Mfg. Co., it was announced recently by Ralph W. Cooke, sales manager, appliance division.

In his new post, Straub will be primarily concerned with correlating the sales and sales promotional activities of Rheem distributors and dealers into the Rheem merchandising program.

Before joining Rheem, Straub was sales manager of Norge Heat Div. of the Borg-Warner Corp. Straub has had previous business experience in the merchandising field with Montgomery Ward of Glendale, Calif. and Brunner Furniture Co. of San Francisco.

### Gibson Names Ad Counsel

GREENVILLE, Mich.—Gibson Refrigerator Co. announces the appointment of Henri, Hurst & McDonald, Inc., Chicago, as advertising counsel.



## PROGREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request to the purchasing office under which the purchase is listed in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid is made.

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named Ordnance District Offices. Do not have information on any other purchases.

Invitations for Bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q," or, if numbered, the number will be followed by the letter "Q."

### DEPARTMENT OF DEFENSE

Description	Quantity	Invitation No.	Opening Date
Philadelphia District Corps of Engineers, 1429 Walnut St., Philadelphia, Pennsylvania			
Dehumidifying units, electrically operated	56	(ENG 36-109-53-23B)	15 Aug 52
Purchasing and Contracting Division, Building T-194, Fort Monmouth, New Jersey			
Alteration to and air conditioning of meat cutting room building T-800, Fort Monmouth, New Jersey	Job	(28-043-53-5B)	25 Aug 52
Contracting Officer, Purchasing & Contracting Branch, (W. Wright-Fellers) Air Force Base, Ohio			
Invitation for Bid /B/ and Requests for Proposal /Q/ are distributed to firms listed in the Bidders List maintained by the above activity. A complete bid set is available for EXAMINATION ONLY by prospective bidders at the Air Regional Offices located in the local trading area of the above activity.			
For Temperature and Humidity Control Systems	Job	(IFB) 33-601-53-5-B	31 Aug 52
Headquarters Air Materiel Command, Dayton, Ohio			
Invitations for Bid "B" and Requests for Proposal "Q" are distributed to firms listed on Air Force Bidders List. Specifications and drawings are available at nearest AF Regional Office for EXAMINATION ONLY by prospective bidders pending their inclusion on AF Bidders List. Bidders can apply for placement on AF Bidders List upon application at nearest AF Regional Office.			

### Trane Appoints Renninger To Wilmington Sales Office

LA CROSSE, Wis.—The appointment of John H. Renninger to the Wilmington, Del., sales office has been announced by Thomas Hancock, vice president in charge of sales for the Trane Co., manufacturer of air conditioning, heating, and ventilating equipment.

Renninger was formerly a sales representative for the firm in the Philadelphia area, and an engineer with the company's fan and heating coil sales department.

### McLaughlin Directs Sales For Pittsburgh Fiber Glass

PITTSBURGH—Robert A. McLaughlin has been appointed director of sales for Pittsburgh Plate Glass Co.'s new Fiber Glass Div., according to J. Hervey Sherts, general manager of the division.

Associated with Pittsburgh Plate Glass Co.'s Merchandising Div. since 1940, McLaughlin had served as a sales representative at the Chicago warehouse and as manager of the firm's Columbia, S. C. branch. During the past five years, he has been manager of the rapidly expanding Mineola, N. Y. warehouse.

Sales headquarters for the new division will be in Pittsburgh.

Production facilities for the production of strand and superfine Fiber Glass are currently being installed at the firm's Shelbyville, Ind. plant. Initial production of the products will commence late this year.

### Ralphs Appointed Regional Sales Mgr. of Timken Div.

JACKSON, Mich.—Promotion of K. O. Ralphs to regional sales manager for the Timken Silent Automatic Div. is announced by R. M. Marberry, merchandising manager.

Ralphs will have charge of oil and gas heating equipment sales in an area composed of Wisconsin, Minnesota, North and South Dakota, and metropolitan Chicago. He was formerly district sales manager for TSA in the New England area.

### Air Conditioning First!

ABBEVILLE, S. C.—The Bank of Abbeville will modernize its building, with the first move to be installation of air conditioning units.

## Government Contracts

AF Regional Offices are located in the following cities:

Atlanta, Ga.	40 Houston St., N.E.	Milwaukee, Wis.	770 N. Plankinton Ave.
Boston, Mass.	10 West Street	Minneapolis, Minn.	320 Second Ave. South
Chicago, Ill.	165 No. Canal St.	Newark, N. J.	218 Market St.
Cincinnati, Ohio	3rd Floor-4th RR Bldg.	New York, N. Y.	67 Broad Street
Cleveland, Ohio	1279 West Third St.	Omaha, Neb.	1411 Walnut St.
Dallas, Texas	4th Floor-UB Bldg.	Philadelphia, Pa.	1411 Walnut St.
Dayton, Ohio	4th Floor-UB Bldg.	Phoenix, Ariz.	311 So. Central Ave.
Detroit, Mich.	4th & Main Sts.	Rochester, N. Y.	30 Symington Place
Los Angeles, Calif.	155 W. Washington Blvd.	St. Louis, Mo.	248 Carondelet Ave.
Fort Worth, Texas	3309 Winthrop Place	Salt Lake City, Utah	207 S. Main St.
Glendale, Calif.	1401 Airway Drive	San Diego, Calif.	3165 Pacific Highway
Hartford, Conn.	500 Capital Ave.	Seattle, Wash.	7755 E. Marginal Way
Indianapolis, Ind.	7th Floor Test Bldg.	South Bend, Ind.	321 N. Eclipse Place
Kansas City, Mo.	54 Monument Circle	Wichita, Kans.	428 East Central
Los Angeles, Calif.	11th & Baltimore	Oakland, Calif.	P.O. Box 1941
Los Angeles, Calif.	155 W. Washington Blvd.	San Francisco, Calif.	408 14th St.
Control unit temperature photographic chemical solution			

### GENERAL SERVICES ADMINISTRATION

Description	Quantity	Reference No.	App. Bid Date
Business Service Center, General Services Administration, Region 5, 575 U. S. Courthouse, 219 So. Clark St., Chicago, Ill.			
Electric water coolers, in accordance with fed. spec. (GS-C-566b, dated July 31, 1947 & amend. 2, dated Jan. 21, 1952, & exceptions thereto)	Job	CHD-3015	8-30-52
General Services Administration, Business Service Center, 1114 Commerce Street, Dallas, Texas			
Ventilating fans, Fort Smith, Arkansas, Post Office.	Job	CR-753-155	8-28-52

### CONTRACTS AWARDED THROUGH AUGUST 8

Description—Contractor and Address	
Headquarters, Air Materiel Command, Dayton, Ohio	
Airborne, air conditioned Semi-trailers—5 ea., \$100,000.—Trailmobile Inc., 31st & Robertson Sts., Cincinnati, Ohio	
Naval Gun Factory, Washington, D. C.	
Air Conditioning Equipment—7, \$23,013.—Airtemp Construction Corp., 412 5th St., N. W., Washington, D. C.	
Office of the Quartermaster, Purchasing and Contracting Section, Fort Ord, California	
Construction of Meat cutting plant addition to existing Cold Storage Plant.—Job, \$148,582.—Joseph B. Fratessa, 461 Tyler St., Monterey, California	



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HOUSE is literally built around Weathermaker conditioner, so Ernest Burguières, Jr. of Ernest Engineering, Inc., Carrier dealer in New Orleans, establishes exact spot for unit before walls go up.



FIXED-SASH high windows, left, for one wall of the living room, give privacy from the street in this New Orleans Weathermaker Home.

## Carrier's Air Conditioned Homes--

(Concluded from Page 1, Column 2) formed to develop the new type of house in the New Orleans area, Robert F. Morrow, the developer, stated.

The homes—all of the present ones in the three-bedroom size—will sell completely air conditioned for \$18,250 to \$19,300, exclusive of the cost of the lot.

London Homes has already contracted for materials to build the first 100 homes, Morrow said.

The Kansas City project is being handled in cooperation with Wadsworth Homes, Inc., manufacturer of modular materials.

"We feel that this opening is the starting signal in a vast change in the way Americans live," declares William A. Lake, Carrier's home air conditioning manager.

The great new market for air conditioned residences has opened up in a big way for the first time this year, he adds.

"We have estimated that by the end of this year half a million homes and apartments in this country will be enjoying partial or complete air conditioning, with about a fourth of that total added to the list this year."

For the builder, he stated, it means that construction of homes designed for complete air conditioning has become the new way of selling homes in quantity. For the buyer, it means not only a new standard of comfort and convenience, but a better investment.

"The Weathermaker Homes built here will still be modern, when conventional homes without air conditioning have lost a substantial part of their resale value through becoming obsolete."

Design of a home can be consider-

ably improved through complete air conditioning, the Carrier executive pointed out.

"For example," Lake said, "we can place the windows where they will do us the most good in terms of light, view, and convenience, without worrying about ventilation. The Weathermaker unit does the complete year-round job of cleaning and circulating air, as well as cooling and removing excess humidity in summer, and heating the home in winter."

"We found we could set bedroom windows high up in the wall for greater privacy. We could solve the centuries-old problem of the intense heat of the afternoon sun entering through windows in the west wall, simply by making this a solid wall, since windows for ventilation only are no longer necessary."

"We can design living room walls for huge areas of fixed glass picture windows without concern for casement windows alongside, or ventilating louvers underneath, or for screens to cover the windows. We can forget about attic fans, the steeper roof pitch needed to house them, and the wasted hall area needed to obtain enough air for halfway comfort."

These features also save the buyer money in construction costs, Lake declared.

"In this pilot house, Weathermaker Home savings will pay for nearly two thirds of the extra cost of installing year-round air conditioning. With the combination of this and of mass building methods, London Homes will be able to sell this home completely air conditioned for about the same price as a conventional home of the same size and quality without air conditioning."

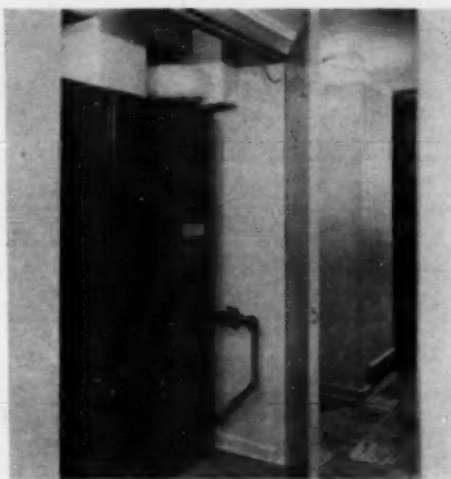
Heart of the home is the Weathermaker air conditioning unit which contains cooling and dehumidifying equipment, plus winter heating and year-round air cleaning and circulation, all in a single compact package. The package sits in a space about 4 by 5 ft. square in a small closet off the hallway, centrally located in the house.

The homes were designed by Rene F. Gelpi, New Orleans architect, for London Homes on the basis of the Weathermaker Home concept evolved by Carrier. They are to be constructed by Gurtler, Hebert & Co., Inc. The Weathermaker unit was installed by Ernest Engineering, Inc., Carrier dealer in New Orleans.

## 330-Home Project In Ill. To Be Air Conditioned

DES PLAINES, Ill.—Year-round air conditioning is being made available in the 330-home development of the Herzog-Kuntze Realty Co. here by using the 2-ton General Electric cooling unit in conjunction with the company's "Air Wall" warm air heating system.

The homes are priced moderately from \$15,675 to \$22,000, but installation of the cooling unit will cost an additional \$1,000, more or less. Sale price of the homes, however, does include six G-E appliances: a washer, dryer, range, refrigerator, garbage disposer, and exhaust fan.



YEAR-ROUND air conditioning unit is enclosed in a small closet off a hallway at the center of the home.

## Ideal Cooler Sales--

(Concluded from Page 1, Column 3) strike and a local crippling St. Louis truck strike.

Ideal Cooler reports the heaviest backlog of orders in its history at the present time. The company recently made major installations of new machinery and other plant facilities designed to accelerate production by 40%.

Industry acceptance pushed sales so far ahead of this mark that Weiss reports his firm is considering new plans for enlargement of their facilities.

## Philco Sales--

(Concluded from Page 1, Column 2) the excess profits tax base.

As a result, net income for the second quarter of 1952 was \$1,948,000 or 52 cents a common share after preferred dividends as compared with \$2,220,000 or 61 cents a common share a year ago. Net income for last year has been restated to give effect to the retroactive increase in Federal income taxes.

In the first six months of 1952, sales of Philco Corp. totaled \$165,156,000 as compared with \$171,023,000 in the same period a year ago.

Earnings in the first six months of 1952 totaled \$4,289,000 or \$1.16 cents per common share after preferred dividends. In the corresponding period last year, revised net income was \$5,741,000 or \$1.58 per common share.

"Our business is continuing at very gratifying levels," Balderston said. "The 1952 line of Philco refrigerators is enjoying the greatest acceptance in our history, and every effort is being made to increase production to meet the demand."

"Sales of Philco air conditioners this year established new high records in the history of the company, and freezer and range volume is also continuing at high levels. Our 1953 multiwave radio sets and our television receivers which feature the Golden Grid Tuner—have been received by our customers with greater enthusiasm this summer than ever before. Inventories of all Philco products are at a minimum."

"Government production is steadily increasing, and the outlook for this strengthened."

## Six Scranton Area Firms Hit by Mechanics' Strike

SCRANTON, Pa.—A prolonged contract dispute resulted in a strike of unionized mechanics of six air conditioning and refrigeration firms.

Business Agent Jack Burke of Steamfitters Local 524, AFL-United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry, said 20 members halted work. The employers place the number involved at about 14.

Among them, according to a spokesman for the employers, are 11 on the payrolls of Gethman & Muller, Dunmore; Scranton Electric Construction Co., McConnell's Electric Co., and the Carrier Corp. H. W. Perabacker employs two and United Fixture Co. one.

The employers demanded elimination of a clause in the agreement which expired Aug. 1 providing for payment of 2% of annual earnings of each employee in lieu of vacations. They offered a 14 and 15-cent hourly pay increase, boosting the top rate to \$2.30 and the lower rate to \$1.90 an hour.

## Johnson Named Norge Heat Sales Promotion Manager

KALAMAZOO, Mich.—C. S. Davis, Jr., president of Norge Heat Div., Borg-Warner Corp., has announced the appointment of W. B. "Wib" Johnson as sales promotion manager.

Johnson was formerly advertising manager of heating equipment of Borg-Warner's Ingersoll Products Div.

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